

ADDING MIST IN PHOTOSHOP

We show you how to enhance the atmosphere of your images with mist and rainbow effects!

MAKE YOUR OWN POP ART

Create a fabulous Warhol-style portrait image with our complete step-by-step walkthrough

PHOTOGRAPHER OF THE YEAR

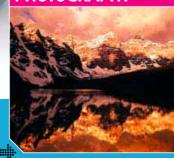
Have you got what it takes to claim our £1,000 top prize?

IN-DEPTH REVIEWS



OLYMPUS E-1 The world's first 4/3rds SLR camera on trial inside!

PHOTOGRAPHY



TOP 10 MOUNTAINS How to shoot the world's most photogenic peaks!

CREATIVE PEOPLE & PARTY PHOTOS

Go beyond the basics! We show you how to capture your best-ever Christmas photographs

■ Discover zoom burst effects! ■ How to shoot festive portraits ■ Exposure techniques for Xmas lights ■ Indoor flash explained Take dynamic group shots and more!

We solve all your photo, camera & PC problems!

This year's best cameras, photo printers, accessories, software and more!





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- 5 x Optical/10 x Digital Zoom Carl Zeiss Vario Sonnar Iens
- · LISE Terminal
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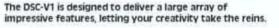




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quickling 2FGDGT

www.dabs.com/sony



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Digital Camera

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- 10 x Optical Zoom

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As easy to use as your TV remote, and with the same point and shoot simplicity, the FinePix A205S Zoom camera will tame even the most timid technophobe. Equipped with a 3X Fujinon optical zoom lens, 2 million pixel CCD, videooutput socket, increased battery life and smart Fullfilm design, the FinePix A2055 Zoom delivers high quality images without the need to frown over an instruction

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Olympus Mju 400 Digital Camera

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The attention grabber!

Get heads turning with the mju 400. Strikingly attractive, this weatherproof camera with full-metal body is the centre of attention in any situation. It also incorporates the latest technological innovations. Its precision 3x optical zoom lens combined with high-quality CCD with 4 million pixels ensure superb image clarity and sharpness.

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- 3 x Optical Zoom

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quickling 2PTJGT

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The HP Photosmart 945 is a precision 8x optical zoom digital camera delivering superior image quality. With 56x total zoom and 5 MP resolution, it lets you capture Incredible detail. It also has "Digital Flash" for photos the way you remember them.

- 5.3 MP resolution
- . 56x total zoom (8x optical, 7x digital)
- 32 MB SD memory card supplied
- 5 cm (2") colour LCD display Optional docking station
- . HP Photo & imaging software with **HP Memories Disc Creator**

Lexar Media

www.dabs.com/lexar





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74 00

Epson RX-500 Photo All-in-One

www.dabs.com/epson





An all-in-one home photo centre that lets you scan, copy and print premium quality photos from digital or analogue collections. Technically, no compromises have been made - the Stylus Photo RX500 offers premium quality photo printing and high performance scanning in one space and cost saving solution. Faded photographs and damaged negatives can be restored and images can be easily stored and shared by scanning direct to memory cards even without being connected to a PC

USB 8 in 1 Media Reader/Writer

quicking 2882GT

EPSON





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This great new advance from Beikin gives you the flexibility to work with virtually any type of media

Adobe Photoshop Elements and Album Bundle

quicklinx 2SB6GT

www.dabs.com/adobe



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Album 20 software combines two powerful products in one affordable package to give you enhance your photos, share them countless ways with family and friends, and always be able to instantly find any picture in your collection.









INTRODUCING THE DIMAGE Z1



IT LOOKS LIKE NO OTHER CAMERA
YOU'VE SEEN BEFORE



IT HANDLES LIKE NO OTHER CAMERA YOU'VE HANDLED BEFORE



ITS 40X ZOOM TAKES YOU DANGEROUSLY
CLOSE TO THE ACTION

The Dimage Z1. A new generation of digital camera that guarantees you get a better picture.

Just when you thought you'd seen it all before... bingo, along comes the 3.2 megapixel Dimage Z1. A camera that, although tiny in size, positively brims with the very latest in digital technology.

And it's dead easy to use. No crash course in digital technology required here.

40x A Mega 10x Optical Zoom lens extending to a massive 40x digital zoom.

Now thanks to the Z1's incredible zoom power you need never worry about getting closer to your subject again. Just press the zoom button and the big, no let's be honest, mega 38-380mm lens will take you all the way in. Ten times closer in fact. And if that's not close enough for you, you can extend it digitally to a truly massive 40x. That's 38-1520mm in 35mm terms.

It really is a Mega Zoom that's super smooth and very very quick.

RAF A Rapid Auto Focus system means you always capture the picture you want... in focus.

In countless situations, autofocus performance can make all the difference between a great shot and a missed opportunity. But not anymore. Enter Minolta's Rapid AF.

A system that uses a sixty frames per second sampling rate to determine the optimum focus. Twice the rate of most digital cameras on the market today.

So now not only will you always get your shot... you'll always get your shot in focus... fast.

UHS+PC Ultra High Speed plus Progressive Capture.

Now thanks to UHS+PC you can capture entire sequences at a blazing 10 frames per second and, when using progressive capture, keep shooting endlessly until you know you've got the shot you want. Never again will you find yourself saying, "I just missed it!"

TV S-VHS quality movies complete with audio.

At its highest movie recording resolution, the Dimage Z1 produces clips with S-VHS quality that, as you might expect, look and sound great on TV. And, for all you night owls, it even offers high picture quality when shooting in dim light with it's Night Movie Mode.

Complete control over all situations.

If you want complete control switch to aperture-priority, shutter-priority, or manual,

If you don't, switch to Program mode and let the Z1 do the lot.

So, no worries just more time for you to concentrate on getting the shot you want.

A fantastic package.

A truly Mega Zoom, Rapid Auto-Focus (down to 4cms), Ultra High Speed image capture, S-VHS quality movies, and built-in flash combine to make this a truly outstanding camera for every occasion. It's all here in the Z1, and it's all yours for an unbelievable price of... wait for it... just £329.99

THE DIMAGE Z1 THE NEXT GENERATION OF DIGITAL CAMERA

Welcome

Welcome to DCM and a hearty Merry Christmas to you all. The festive season is a great time of year for photographers, even though it's getting a bit chilly outside!

The photographs we wish we'd taken this month!



Kai Wood

Deputy Art Editor Really interesting sunset shot by Graham Henshaw that avoids the cheesy clichés and has a great range of colours.

SEE THIS SUNSET IN THIS MONTH'S PHOTOGRAPHER OF THE YEAR, ON PAGE 52

Adam Evans **Editor**

Ah, Christmas. A blessed time of peace, celebration, goodwill to all men – and rock and roll! Festive portraits just don't get any more inventive than this.

SEE THIS SHOT IN THE BIG PICTURE, ON PAGE 146



ith plenty of spare time to get the camera out and persuade bored relatives to pose, Christmas provides a great

opportunity to take some interesting shots. To help you in your quest, our feature this month is on just that subject,

namely making the most of all the photogenic opportunities that Christmas has to offer. Whether it's capturing the magic of a winter fair at dusk or taking an intimate family portrait, we've got hints, tips and suggestions to inspire you to take your best ever Yuletide shots.

Of course, even all this may not be enough to keep you fully occupied over the holidays, so we've gathered together our usual bulging sack of Photoshop and Paint Shop Pro goodies for you to perfect your image-editing skills. Not only do we have tutorials galore in the magazine (including the wonderful Warhol Pop Art project, on page 56) and extra video lessons on the discs – but we also have the fantastic Photoshop and Paint Shop Pro Expansion Packs, chock full of over 1,400 plug-ins and extras for you to use this Christmas. Enjoy!

Best wishes

The festive season is a great time of year for photographers

TELL US WHAT YOU THINK OF THIS AND OTHER ISSUES ON OUR FORLIMS WWW.DCMAG.CO.UK

Meet the team...



Adam Evans Editor editor.dcm@futurenet.co.uk

Our promise to you

- We will show you how to capture and create better pictures, give clear, independent buying recommendations on the latest kit, and deliver two CDs or one DVD packed with the best PC software.
- We use boxes, tips, quick fixes, quality photography, walkthroughs and diagrams to show you how to improve your photographic and image-editing skills.
- We have a cast-iron policy of editorial independence. All our kit is reviewed assold. We discourage our journalists from accepting gifts from advertisers.
- We welcome your opinions on the magazine, ideas for articles, photography, thoughts and questions.
- Send them in today see the email addresses opposite.

Meet your experts



IM DALY Photographer and writer

Tim is one of the UK's leading digital photography experts. He's written numerous books on the subject, and his photos have exhibited across Europe



BAVISTER Photographer and editor

Steve is one of the UK's best-known photographic writers. He has edited Photo Answers in the past, and now writes for us every month



AIDAN O'ROURKE Technical expert
Aidan is a freelance photographer and contributor to the Manchester Evening News. He lectures on digital photography around the UK



ORGE CAIRNS Image-editing guru

George is an expert in producing amazing artwork using Photoshop. He welcomes your suggestions for future creative projects...



OD LAWTON Camera expert

Rod has reviewed virtually every digital camera ever released. A self-confessed technical nut, he reviews five new cameras each and every month for us



RRY JACKSON Digital artist and Photoshop guru Barry combines his digital camera, computer and Adobe Photoshop to create his simple but stunning

pieces of art

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Contents DCM#15

What's hot inside your magazine this Christmas





PictureMan 3.1

A new way of working with photos using this processing, editing and retouching tool

Antique mounts

Take an old mount and transform

PhotoImpact 6

the simple click of a button

FocusFixer

Create your own web graphics and post them on your online gallery, using PhotoImpact

Use FocusFixer to fix all your

Use Focus Fixed to the oil your out-of-focus photographs, with









Independent testing



We review Olympus's long-awaited 4/3rds camera, the E-1 SLR p34



We reveal the big winners in the first annual Digital Camera Magazine Awards p18





REVIEWED THIS MONTH.

Olympus E-1	p34
Pentax Optio 33WR	p38
Kodak DX6490	p40
Sony Mavica CD500	p42
Adobe Photoshop CS	p44
CorelDraw Essentials 2	p45
Ulead PhotoImpact XL	p45
Wacom Graphire 3 Studio	n45



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PHOTOSHOP

SECTION

p55



Pop Art portrait

Digital photo artist, Barry Jackson, uses basic filters and blends to create a fabulous Warhol-style portrait



Add atmosphere

Derek Lea alters the feeling of an image by adding wisps of mist with layers and the Alpha channel





Remove elements
Get rid of unwanted people and objects from your image using the Clone and Selection tools



Reader photos

Tom Ang and Adam Evans cast a critical eye over this month's selection of reader's Photoshop submissions

PAINT SHOP PRO



A-Z of layers

Vector layers aren't just for those interested in drawing. Lori Davis examines how to use them.





SHOOT

p85





A80

This month, **Aidan O'Rourke** gives advice on filters, cleaning up scans and brightening dull photographs

Photo Clinic

Our technical guru, **Andrea Thompson**, gives her advice on how readers can improve their photos

Your photos

Adam Evans and Tom Ang give us their expert analysis of some more reader photographs

Setting up a studio
In the third and final part of our series, Tim Daly explains how to control still-life lighting



UK's best discs

More videos, full software, project files and plug-ins than any other magazine!

Picture Man 3.1

Fully-featured image editor with 100 cool filters to improve your pics!

- Processing tools
- Subtle editing
- Retouching effects



Focus Fixer

Fix out-of-focus photographs with the click of a button!





- Restore images
- Adjust sharpness
- Simple to control



DISC CONTENTS





Full software [Disc A] PictureMan 3.1

Trial software PictureMan 4

Tutorial files

Creating misty effects Eliminating unwanted backgrounds Erasing backgrounds PSP layers guide Pop Art Warping in Paint Shop Pro

Tutorial videos

Eliminating Unwanted backgrounds Creating misty effects Frasing backgrounds

Full software [Disc B] FocusFixer 1.0.2

Trial software FocusFixer 1.2.2

Paint Shop Pro 8 Photo Album 4

Photoshop Extras from

Cybia Collection GraphicXtras Collection Photoshop Roadmap Antonino Perricone Digital Film Tools Flaming Pear namesuppressed Nik Multimedia and more

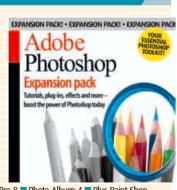
Tutorial videos

Wrecking London **UV Tutorial**

BONUS ON DISC 2

Photoshop Expansion pack!

Photoshop-compatible plug-ins and extras! It's everything you need to get better results!



FocusFixer Full [Mac & PC] ■ Paint Shop Pro 8 ■ Photo Album 4 ■ Plus Paint Shop Pro 8 extras, actions, brushes, texture brushes and plug-ins from Cybia. Styles, actions, patterns, shapes, brushes and plug-ins from GraphicXtras. Layer styles and Paper backgrounds from Photoshop Roadmap. Plus, a selection of plug-ins from Antonino Perricone; Digital Film Tools; Flaming pear; namesuppressed; Nik Multimedia; Power Retouce; Richard Rosenman; and theimagingfactory.

VIDEO TUTORIALS!

4 in-depth video lessons

Get creative with Photoshop

- Create atmospheric lighting effects
- Clone out unwanted objects
- Professional cutouts the easy way ■ Create an amazing wrecked city



BONUS DVD FILES

Trial software

ABC Amber Image [PC] Converter [PC] Color Wheel Pro [PC] Dog Waffle 1.11b [PC] FastPic 1.1 [PC] FlaxMenu [PC] HyperSnap-DX 5.3 [PC] Iseult 1.1 monkeyphoto [PC] Pattern Only Scrapbook Buddy [PC/Mac] PhoTags 2.5 [PC] Photolighting 2.3 [PC] PhotoMeister Professional 2.2 [PC]

Poster Printery Selteco Photolab [PC] SlideshowPilot [PC] ExhibitionX 2.3 [Mac] Gammawork 1.5.1 [OSX] iPhoto Diet [OSX] FR-Photostudio [OSX] Portraits and Prints [Mac] Supaimage 2.1[Mac] XSee [OSX] TVCD Creator [PC]

PLUS Video tutorials Depth of Field

Replacing backgrounds

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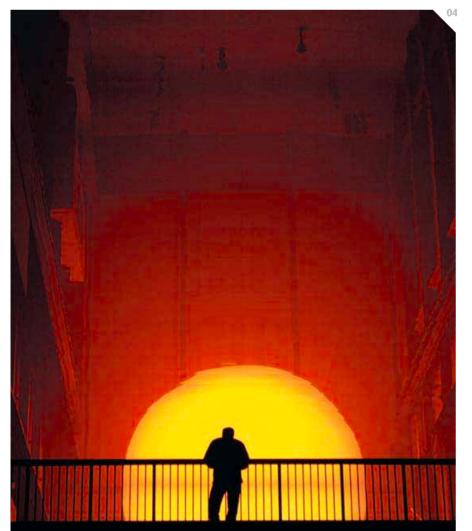


02 / BOB JONES Fun, Fun, Fun!

"This photograph was shot at the fun fair in Rhyl, North Wales in August, on a morning of changeable weather, sunshine and intermittent heavy showers."

Canon EOS 10D, Sigma 70.0-200.0mm @ 70.0mm

[e] www.ImagineWales.com





03 / THOMAS McCONVILLE The Bridge

"This is the Vincent Thomas Bridge, Los Angeles. In the original image there was a dreadful orange cast. I made a selection in Photoshop around the vehicle light trails then inversed it, removing all the colour in the rest of the image." Canon D60 & Canon EF 70-200mm 2.8L IS

[e] theimagegroup1@earthlink.net

04 TERRY McGINNIS (Artificial) Sunset for Hollywood Hero
"Taken in the Tate Modern, London. The subject is Olafur Eliasson's The Weather Project. I used Paint Shop Pro to edit the picture's colours and size."

Canon EOS 300d

[e] terrymcginnis@ntlworld.com

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SIGMA S10 ON ITS WAY



21ST CENTURY PHOTO ALBUM Epson releases a photo album with a 3.8in LCD and 10GB hard disk



SHOOTING THE NORTHERN LIGHTS

Second-generation Sigma SD10

At last, another digital SLR based on Foveon's imaging technology

How can you expect it to have improved on the **SD9?**

igma's range of Foveon-chip digital cameras has evolved, with the launch of the second-generation SD10. We'll bring you our verdict on the new camera when we review it soon, but how can you expect it to have improved on its predecessor, the SD9?

Back in the early part of 2003, we tested the pioneering new SD9, which promised a

breakthrough in imaging technology, namely Foveon. Conventional digital SLRs capture colours in a grid-like structure of pixels, with a number of pixels each for red, green and blue. Foveon's radical new 3MP chip captured all three colours at each pixel site, in theory promising sharper, crisper and cleaner images.

We gave the camera 79% in our in-depth review (DCM 6). Although the imaging technology had clear potential, it was still early days in its evolution and we said: "Between them, the SD9 and the Foveon chip have introduced a dramatically different imaging technology at a highly affordable price. As yet, though, the image quality doesn't live up to its promise. You'll need to do a lot of image-editing work to reveal its potential and most people want good results out

The updated 10M X3 sensor in the new SD10 promises improved dynamic range, colour response and sensitivity. Sigma also claims extended ISO sensitivity in its new SD10 model longer exposures, 1/3 EV steps, wireless TTL flash support and image processing enhancements provided by Sigma Photo Pro 2.0.

Pricing: Sigma SD10 Body SRP £1,100; Sigma SD10 imaging kit 18-50mm F3.5-5.6 DC £1,150; Sigma SD10 digital twin zoom kit (18-50mm F3.5-5.6 DC+55-200mm F4-5.6 DC) SRP £1,250.

SIGMA SD10

Find out more about Sigma's new SD10 at www.sigma-imaging-uk.com

QUICK SHOTS

This issue we see the launch of the first digital camera since the amalgamation of Konica and Minolta. The Revio KD-420Z, retailing around the £300 mark, is a 4MP model with 3x optical zoom, and the camera boasts a speedy start-up time of just 0.9 seconds. Go to www.konica minolta.co.uk

Canon is keen to promote the idea of direct printing, selling special bundles of its digital cameras with its CP-200 Card Photo Printer. These bundle offers apply to the PowerShot A300 and A70 cameras. The printer produces 4 x 6-inch high-gloss photos and the handy unit connects to cameras directly via a USB cable. The offer runs until the end of the year and the A70 bundle costs £299 with the higher-end A300 costing £399.

PUT CELEBS IN

Celebrity Mix is a new internet service that allows those with camera phones or digital cameras to send in their photos and 'mix' them with images of celebrities. Get more details from www.my

Quality CD storage

Nearly half of digital snaps are now stored on CD

In response to our story last month about unbranded CD-Rs failing within a couple of years, French CD manufacturer Hi-Space is extolling the virtues of gold CD-Rs, on the back of an interesting

survey about how we store our digital photographs. We can reveal that a huge 46% of all consumers' digital photos are now stored on recordable CDs, and only 11% of photos taken are printed to hard copy. Hi-Space surveyed 860 photographers and now warns the public that not all CDs are of the same high quality.

"There's a misconception that one CD-R is much like any other but the current influx of low-cost disks is in danger of damaging the reputation of the CD-R over the next few years as people learn about the quality difference the hard way," says Paul Chantry, UK sales manager for HiSpace.



Best sellers

Top camera in the market Sony DSC-P52 Cybershot £166.85



Sub-£150 Kodak Easyshare £85.99



Sub-£300 DSC-P52 Cyber-shot £166.85



Sub-£500 Sony DSC-V1 Cybershot £449.99



Over-£500 Canon EOS 300D SLR (body and lens) £899.99



HOW THE **TECHNOLOGY WORKS**

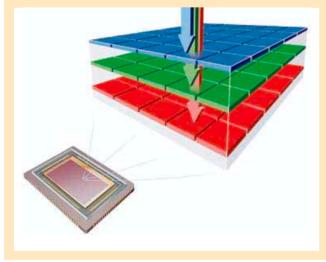
FOVEON X3 TECHNOLOGY VS CONVENTIONAL DIGITAL SLR

Conventional CCDs and CMOS chips only respond to the intensity of light, not its colour. That's why digital cameras need RGB filters overlaid on top of the chip.

Essentially, one picture sensor in four has a red filter over it, one has a blue filter and the other two have a green filter (the human eye is more sensitive to green so it needs greater emphasis). When the camera processes the image, it has to

interpolate the colour information essentially 'quess' at the colour to fill the gaps. Each red sensor, for example, is used as the basis for calculating the red component in three more around it.

The revolutionary design of Foveon X3 direct image sensors features three lavers of pixel sensors. The lavers are embedded in silicon to take advantage of the fact that red, green, and blue light penetrate silicon to different depths - forming the world's first direct image sensor.



world.co.uk

Competition herds the top talent

Winners capture essence of British farming in a photo contest

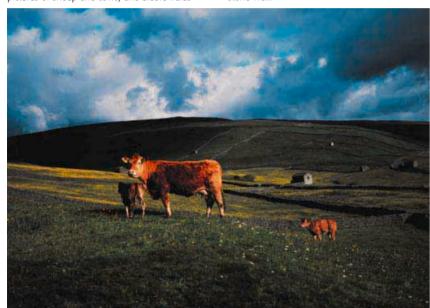


Winners of the British Farming photography competition have now been announced. The hotly contested competition asked

entrants to capture the essence of the beauty of agriculture and nature in balance. Since its launch in April, the competition has attracted around 500 entries, the most notable of which dealt with a diverse range of subject matters, from pictures of sheep and cows, and arable fields

and hay bales, through to tractors and close-ups of ladybirds.

The winner in the adult age group scooped a £1,000 cash prize for snapper Gordon Nicholson from Wigan. His was an image of a cow with calf in Swaledale. Farmer's daughter Alice Helliwell from Derbyshire took home the £500 winner's jackpot for the children's category, with her image of the construction process of a dry-





The two winning entries in the adult and children's categories

New Cybershots

Sony cameras target the youth market and prosumers

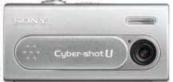
THE DSC-T1 OOZES STYLE AND QUALITY



Sony's new duo of Cybershots is as good looking and desirable as you would expect

from the style giant. But what else do they offer the consumer with cash in the attic? Well, the DSC-U40 extends the range of tiny pocketsized cameras, aimed at the





Is the Cybershot DSC-U40 the last word in tiny technology? Sony claims it's about as portable as a quality camera can get

younger market and ideal for capturing friends on camera while out and about. It's 2MP and delivers photo-quality images in a tiny frame, which even allows space for a small LCD.

And then to the top-of-the-range. the DSC-T1 oozes style and quality and is for the more discerning photographer. The 5MP slim model's components have been scaled down as far as possible to fit a slimmer case and yet Sony has still found room to position a large and bright LCD screen. On top of all that, the T1 features a new top-of-the-range Carl Zeiss-Tessar lens. Check out www.sony.co.uk for more info.



5th November, Finland

You may have seen some spectacular fireworks on Bonfire Night but it's doubtful that you saw anything to compare with the Aurora Borealis, the Northern Lights, prompted to amazing heights by the recent solar storm.



Straight to the heart of the chatter



Mark recalls his days as a trainee photographer...

Many years ago - not long after wet collodion plates were superseded by nitrate film - I decided to commence training as a photographer. It had been a deliberate decision because photography seemed like the easiest way to earn a living. It would, I fondly imagined, be a life spent lingering on the corner of easy street

I imagined that I would begin by photographing the odd society wedding before moving into the world of glamour and fashion photography. I'd drive a Mercedes and would wear a raffish, knotted handkerchief around my neck. Life would be sweet. David Bailey would call me for my advice and I would exchange witticisms with Tony Armstrong Jones and Lord Lichfield

The cruel reality of life as a trainee photographer was somewhat different. Still, I tried to look on the bright side. At least I wasn't a press photographer... or 'toggie' as they're sometimes known. In the pecking order of life, the press photographer occupies a slot somewhere between plankton and protozoa. They are the great unwashed, the untouchables, the lowest caste of photographer.

To be a press photographer is to be consigned to hours of boredom. As a profession, it generally attracts the wrong sort... the kind of person who is perfectly happy to lie in wait for a minor C-list celeb to crawl from

> Member of the Master Photographers' Association. Discuss the column at www.dcmag.co.uk/forums or email

an Islington bedsit, or to stalk a soap star who's just finished eating pecorino tortellini in some North London eaterie. The press photographer – or paparazzi as he is more commonly known - is well known as the scum of the photographic world.

I once tried my hand at press work... just to see what it was like. It was back in 1992 when John Major was touring the country with his infamous soap box. I joined the scrum of press toggies that was following the prime minister. We arrived in some provincial town centre and I soon found myself wedged between two very burly types with their battered Nikons and beatenup flash-guns, all bound up with Duck Tape. My feet left the ground and didn't return there for a full 30 minutes as I was carried off in the pack, sandwiched between the two toggies. It was terrifying. They were like animals - baying hounds intent on their quarry, no matter was in their way.

It was that experience that finally caused me to shy away from full-time photography. I figured that if those 'toggies' could get award-winning shots in the pouring rain, with crap light, while being crushed to death by their colleagues, what chance did I have of ever being a top toggie?

I would have taken my hat off to those press guys that day... if I could have got my arms free!

New Fuji still camera conjures up video too

The F420 is slim, high quality and it delivers 30 frames per second video

The camera is eminently portable, and is about

the size you can slip into a pocket rather than a

bag. It has a good-sized screen and its portability

compatibility, the industry-standard technology for

The Super CCD High Resolution is a technology

of which FujiFilm is very proud and the company

is made all the more usable by its PictBridge

printing directly from a camera to a printer,

meaning you can output results on the move.

THE **CAMERA IS EMINENTLY** PORTABLE, **AND IS SIZE YOU CAN SLIP** INTO A

ABOUT THE

POCKET

MOBILE **SNAPPER**



No white balance? No problem, says Mike Taylor



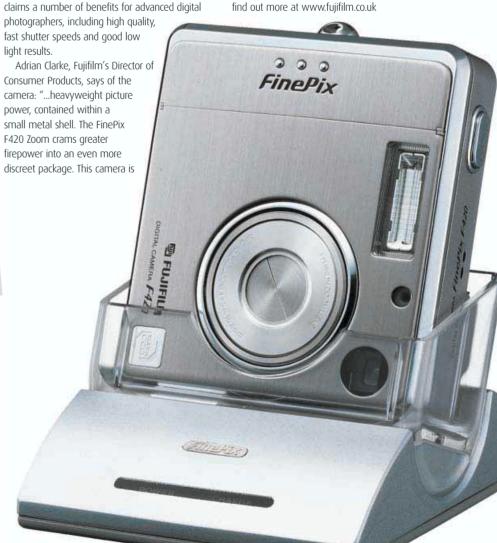
Grant Askey finds something unusual in his tea



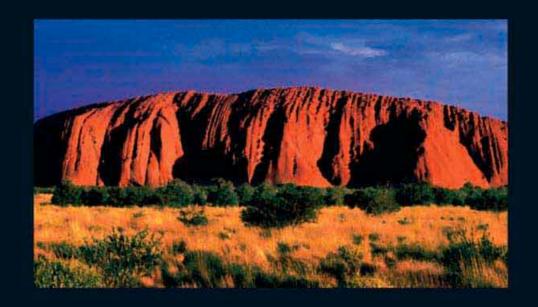
Firepower and class in one package, according to maker, FujiFilm

that rarest of combinations - it looks great wherever you take it, and you can be sure the pictures will, too."

Of course, he's bound to say that but you can find out more at www.fujifilm.co.uk



and digital photographer. Billions of years ago, when he was 18, he





Digital camera technology has just taken a massive step backwards.

The new Olympus C-5060 Wide Zoom is the first compact digital camera with a 27mm extra wide angle lens. This not only allows you to get more of your subject in frame but also gives you a massive depth of field, opening up all sorts of creative opportunities. Additional lenses can be added via simple bayonet fixings and a swivelling LCD screen gives even more flexibility. And with 5 million effective pixels and full user control, the C-5060 Wide Zoom is the future of digital photography. For details telephone 0800 072 0070 or visit www.olympus.co.uk.







QUICK **SHOTS**

IT'S NOT ALL SUMS,

Perhaps the biggest challenge for any digital photography, professional or amateur is to make a dull subject look interesting. And if that is your flair, this could be right up your alley. The Association of Chartered Certified Accountants is offering photography students worldwide the chance to have their work featured in a new range of corporate adverts. So if you think you can take engaging images of ACCA members at work you'll get the chance to showcase your portfolio on ACCA's hugely populated website in return for your hard work. Have a look at the preview online for more information. www.accaglobal.com

NEW GALLERY TO SHOWCASE NEW TALENT

/vision

A new photographic gallery is opening in Clerkenwell, London, at the end of November. It aims to showcase the talents of photographers and raise photography's profile as an artform and promises to showcase the talents of as yet un-exhibited photographers as well as established ones. The opening show features eight photographers whose works concentrate on still life, landscapes, and wildlife among other subjects. Take a look at the line-up at www.hoppersgallery. co.uk or email gallery@hoopersgalle ry.co.uk if you want to put forward your portfolio.

21st century photo album

Epson releases a photo album with a 3.8in LCD and 10GB hard disk



Everything is digital these days – even the humble photo album has had a makeover. So no more the dusty tome propping up the

bookcase, with creased, folded and badly stuck dog-eared photos in it from holidays past. Next time you go away why not take something like the new Epson PhotoPC P-1000? It's a compact device consisting of a 3.8 LCD screen for viewing your images and a whopping 10GB hard disk for storing thousands of shots while on the move.

You can run slideshows of your snaps once you've downloaded them from your camera via the USB lead and then of course you can print straight from the device or even burn the shots to CD to back them up securely. Available now, the unit will set you back just a whisker under £500.



Gadgets galore

From webcams to credit card cameras, there's something for everyone



Just in time for the Christmas rush, but only just, Logitech has a raft of goodies just waiting to wrapped up and stuck under the Christmas tree.

And a couple of them are particularly perfect for keen photographers out there. Firstly the Pocket Digital 130, Logitech's credit card sized camera now incorporates a flash. With fun firmly in mind, the camera comes in just under the magic £100 barrier, has true 1.3MP resolution and its in-built memory can store up to top quality images. The camera has a strobe flash and is available now.

Second up is the QuickCam Sphere
Webcam. Along with looking pretty cool on
the non-nerdy desktop, this camera can
physically turn 140 degrees side to side and 60
degrees up and down so that you can keep your
subject's face on camera at all times. Logitech is a
leader in Webcam technology and this one is
claimed, by the company, to be the only model
available that can physically move to keep a

person's face automatically centred, with its Logitech proprietary robot-like tracking software that allows the camera to automatically follow a person's face. The £99.99 camera has a zoom, which allows more accurate display of facial expressions, and it captures still images of up to



Fun shots wherever you go, courtesy of the new Pocket Digital 130

WHAT'S **ON**

Mark Harris rounds up the latest exhibitions, events and training to get you out from behind your PC.

EXHIBITIONS

The Office : Group Show

What: Deconstructing the corporate environment with images of the designs, iconographies and people who inhabit the business world. Humourous, thought-provoking and revealing in equal measure.
Where: The Photographers' Gallery,

Newport Street, London
When: Until 25th January 2004
Price: Free

Details: 020 7831 1772

Schweppes Photographic Portrait Prize 2003

What: The leading showcase for new talent in portrait photography, featuring the prize-winning images plus a selection of the strongest runners-up.

Where: Porter Gallery, The National Portrait Gallery, London When: Until 15th February 2004 Price: Free

Details: 020 7306 0055

Dalziel & Scullion : Genus

What: This breathtaking and moving installation contains over a thousand images from the Museum's archives, spanning the history of photography from its earliest practitioners to recent press shots.

Where: National Museum of Photography, Film and Television, Bradford

When: Until 25th January 2004 Price: Free

Details: 0870 7010201

Cindy Sherman

What: Since the mid-1970s, Sherman has been taking photographs of herself in a variety of costumes and roles, questioning the portrayal of women in modern art.

Where: Scottish National Gallery of Modern Art, Belford Road, Edinburgh When: Until 7th March, 2003 Price: £4, £3 concessions

Details: 0131 624 6200 Circling The Square

What: Celebrating the history of Trafalgar Square through the eyes of photographers such as Henri Cartier Bresson, Don McCullin and John Benton-Harris

Where: Studio Gallery, The National Portrait Gallery, London When: Until February 2004 Price: Free

Details: 020 7306 0055

British Gas Wildlife Photographer Of The Year

What: Travelling exhibition showing the 106 winning and shortlisted entries, selected from over 20,500 entries from more than 60 countries. Where: Natural History Museum, and regional venues around UK When: Varies, until April 2004 at



Grey Area © Sofia Hulten

Natural History Museum

Price: Varies. £5/£3 concessions at

Natural History Museum

Details: http://flood.nhm.ac.uk/cgi-bin/wildwin/2002/tour_index.html

COMPETITIONS

Soil Association Photo Competition 2003

What: Get your hands dirty and shoot an image that promotes organic food or farming. Top prize is a HP Photosmart 620 digicam and your work will be used to promote the Soil Association

When: Until 1st March 2004 Price: Free entry.

Details: Download an entry form from www.soilassociation.org

TRAINING

Getting Started In Digital Photography

What: Introduce a friend to digital imaging with this taster day for novices. They'll learn how to shoot, download and print out their best images.

Where: National Museum of Photography, Film and Television, Bradford

When: 3.30pm, 14th January 2004 Price: £15 or £12 concessions 020 0870 7010201

EVENTS

Focus On Imaging 2004

What: Europe's largest annual imaging show, covering hardware, software and techniques from image capture to output. Expect over 200 exhibitors and plenty of product launches.

Where: The National Exhibition Centre, Birmingham When: 22nd to 25th February 2004 Price: £6

Details: 0208 681 2619

Hold The Front Page

What: Join a 1940s picture editor and discover the story of the Blitz through photographs. Suitable for the family. Where: National Museum of Photography, Film and Television, Bradford

When: Sundays from 21st December to 4th January 2004

Price: Free

Details: 0870 7010201



Pulling power from Pentax.

With a pin-sharp 5x optical zoom and high-detail 5 megapixel resolution, the Pentax Optio 555 brings digital excellence to the max. It's superbly equipped with a host of innovative features and functions to handle most imaging opportunities. Including high quality video clips and sound. Beautifully styled and a dream to handle, it delivers stunning results with absolute ease. The Pentax Optio 555 – just hold it and you're hooked. Visit www.pentax.co.uk or phone 01753 792731.



The new Optio 555. Everywhere now.





In our first annual awards feature, we reveal the best kit for the year ahead...

hristmas may be just around the corner but that doesn't mean you've got to go out and panic buy. Take your time and do your research - or, if you're in a hurry, let us give you the inside scoop on the very best kit for the year ahead. Garnered from the pages and experts of Digital Camera Magazine, the products on the next few pages are the choicest picks from seven categories of digital photography essentials. As well as the best cameras, we reveal the top printers, scanners, tripods and software to take you into 2004.

The categories

Before the judging started, we thought long and hard about the categories that you, our readers, would want to see. All too often in all branches of the media, awards are given purely in order to please advertisers. Not here - all our choices have been made by the editorial team on Digital Camera Magazine with no input whatsoever from anyone else. Correspondingly, our camera categories are designed specifically for you, with digital

SLRs, mid-range and consumer cameras all getting their own awards. Manufacturers like to pigeonhole buyers into professionals, prosumers and consumers. We know that you're all different, that all your needs are different, and our choice of categories – and the winning cameras - reflects this knowledge.

In addition to the three camera categories, we have four covering essential hardware and software, including everyone's most essential piece of metal, the tripod. Printers and scanners are vital bits of kit for the new breed of digital photographer, so if you haven't yet taken the plunge – or if your existing models are looking worn - we'll tell you the very best models to go for. Of course, it's not all about computer hardware. You'll also need software with which to get the best from your images. Rather than give Photoshop yet another award it doesn't need, we've decided to assume its position as top dog in the image editing world and concentrate on telling you about the very best budget software. But that's enough talk - time for the awards!

Best Digital SLR Camera





PRICE £900 WEB www.canon.co.uk

Reviewed just last month, Canon's amazing new digital SLR has undercut its nearest rivals by hundreds of pounds. Yes, the body is plastic but it's actually pretty solid and well made – and while Canon has disabled some advanced functionality in the software (so as to leave a market for the 10D) this camera still has everything a non-professional digital photographer could possibly want. Pictures are sharp, clear and detailed, with quality that it essentially identical to its older, bigger brother the 10D. It's also seriously quick and is wonderfully easy to use. This is the DSLR of the year.









FujiFilm FinePix F700

PRICE £500 WEB www.fujifilm.co.uk The F700 is the first camera to use FujiFilm's new SR sensor chip, which features extra sensors on the chip in order to capture detail in highlights that are out of the range of normal sensors. Does it work? In a word, yes. However, the 6MP resolution is more comparable to a good 5MP camera.



WINNER! BEST MID-RANGE

Minolta DiMAGE A1

PRICE £850 WEB www.minolta.co.uk

The A1 is the successor to the fabulously successful DiMAGE 7. Basic specifications include a 5MP resolution and a 7x zoom, giving seriously impressive picture quality. The only worry is the price, particularly when compared with Canon's new budget 300D SLR, but the A1 may be all you need in one lightweight package. One of the many improvements to the DiMAGE 7 is the new anti-shake system, which promises to enable you to take shots in low light far more easily than before. It'll should also help with action photography. A worthy winner in the mid-range camera class.



RUNNER UP BEST MID-RANGE

Nikon Coolpix 5400

PRICE £600 CONTACT www.nikon.co.uk Judged purely on handling, features and ease of use, the 5400 is arguably the best camera in this class. However, the image quality isn't quite up to the standard set by the winner in this category, with just a slight lack of sharpness in the final result



Best Printer

WINNER! BEST PRINTER

Epson 2100

PRICE £522 WEB www.epson.co.uk

It may be the size of an aircraft carrier and cost about the same but, if you're serious about A3 prints, the Epson 2100 is a wonderful printer. Here are the highlights: seven inks; 2,880 x 1,440dpi print resolution; USB 2.0 and Firewire connectivity; longlasting pigment inks; flexible media handling options; and superb prints both in colour and black and white. A worthy winner.

HP Photosmart 230

PRICE £135 WEB www.hp.com The Photosmart 230 is a small format printer about the size of a loaf of bread. You can print directly from supported camera and the print quality is surprisingly good.



Canon i950

PRICE £265 WEB www.canon.co.uk Canon's A4 printer connects to your computer via USB 2.0 and delivers fantastic photo results, using 4,800dpi technology combined with no fewer than six inks.

1:2.8-3.5 APO

Canon Canoscan 8000F

PRICE £199 WEB www.canon.co.uk

WINNER! BEST SCANNER

The Canoscan 8000F gets our award because it's fast, flexible – and can scan photo negatives as well as prints. Canon's FARE dust and scratch removal software helps to get the best out of the scans. You can connect it to your computer using FireWire or USB 2.0. Optical resolution is 3,200 x 6,400 dpi, which - with 48-bit colour depth - is more than enough detail for the majority of us.

Best Scanner

Epson 1660 Photo

Slightly cheaper but still with excellent specifications, Epson's 1660 Photo scans a 1.600 x 3.200 resolution with 48-colour depth. Film scanning is seriously quick.



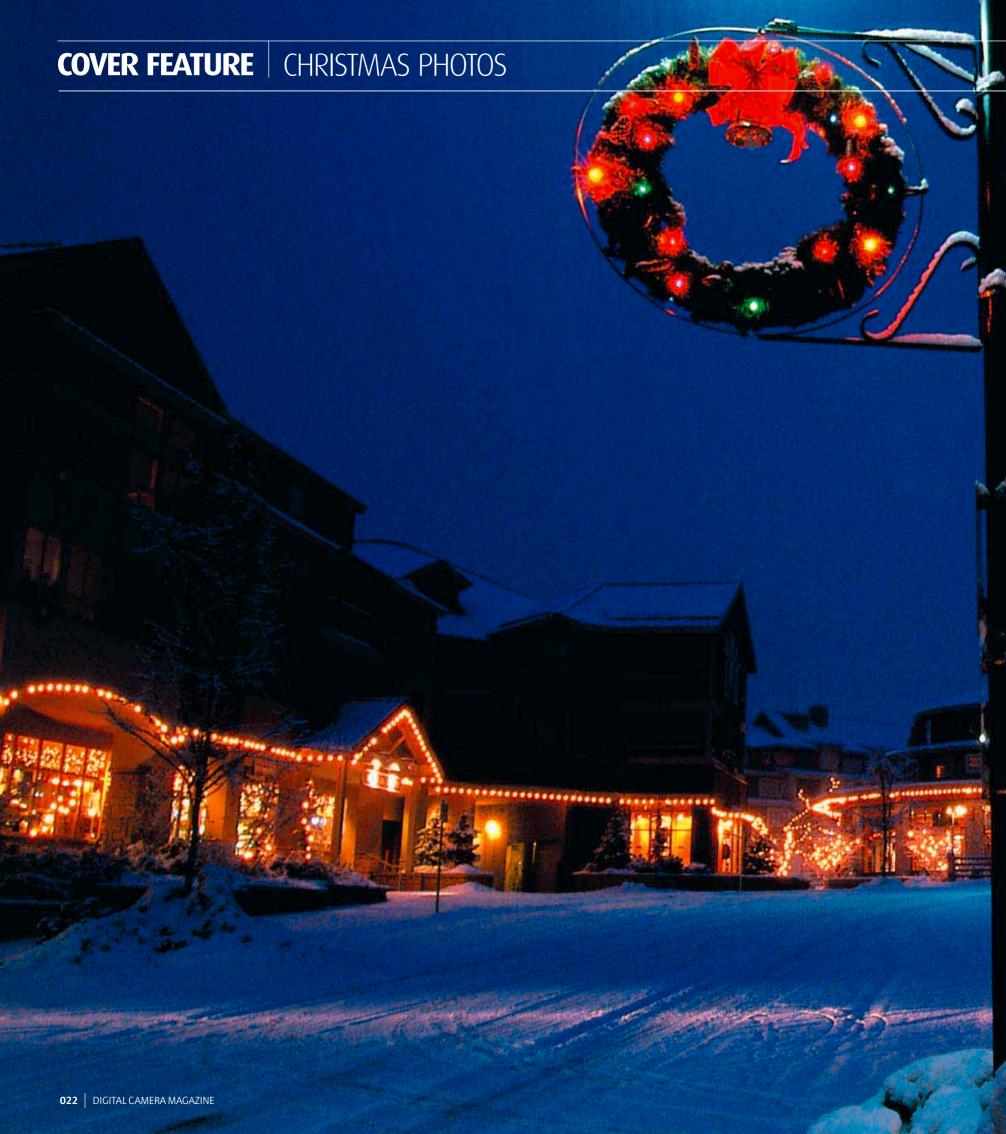
Minolta DiMAGE Scan Elite

PRICE £600 WEB www.minolta.co.uk
It's by no means inexpensive but the Scan Elite is our top pick from the film scanner bunch. If you need a dedicated film scanner, this 5,400dpi scanner – with FireWire or USB 2.0 link – won't let you down.









Capture the spirit of Christmas

Christmas gives you the ideal opportunity to get some wonderful family images and try out some new ideas, says Steve Bavister

hestnuts roasting by an open fire. Jack Frost nipping at your nose. That's how Christmases are supposed to be. These days, however, they're more likely to involve a pilgrimage to the nearest shopping centre and everyone gathering round the box to watch Eastenders.

However you celebrate the festive season, there's one thing that's certain: it's a great time of the year for photography. Most people get a few days off work, which provides the opportunity to take lots of pictures. First and foremost, it's a chance to capture those special moments when families come together. But it's all too easy at this time of year to slip into 'snapshot' mode, where you just set the camera to 'program' and don't think too much about what you're doing. Instead of settling for a simple record shot, aim higher, and have a go at producing something more creative

Making pictures

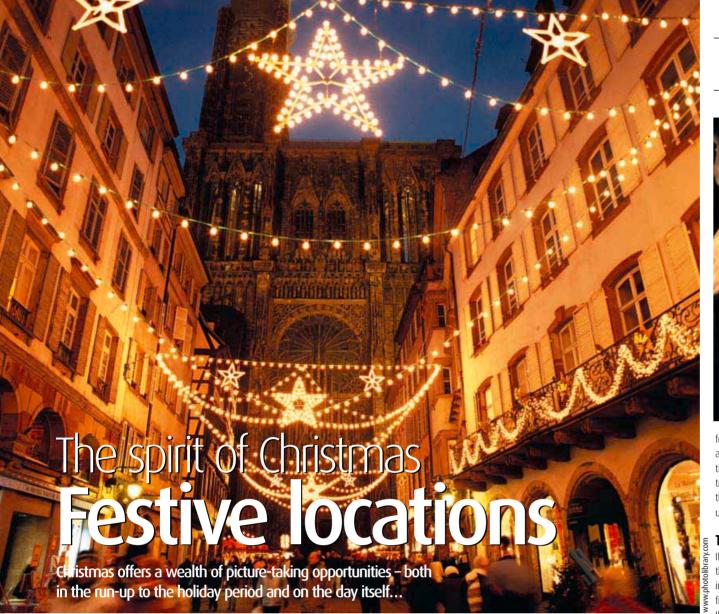
Instead of just 'taking' pictures, think about 'making' pictures. That means setting things up how you want them rather than accepting what's already there. When it comes to photographing your family at Christmas,

that means spending a minute finding the best viewpoint, tidying up some clutter, or moving people to a different location where the light is better. It means thinking about the composition, and how to make it better, and the best way of posing individuals and groups, rather than letting them just stand or sit where they want.

When it comes to shooting seasonal still-lifes, it's all about taking control of the lighting – using reflectors where necessary, or improvising a 'studio' with whatever resources come to hand.

'Making' rather than 'taking' also means getting out and about where there are interesting pictures to be taken, such as Christmas markets and street displays. Yes, of course it's cold, but if you have two or three layers of clothing to trap the air and a good scarf you'll have no problem keeping warm. Oh, and wear a pair of fingerless gloves – the type that market traders use – so you'll be able to stop your hands from getting cold, but still be able to operate your camera controls.

This Christmas, then, take your photography seriously, and produce the best seasonal images you can. But don't become a photo bore, endlessly shooting everything in sight – make the most of the opportunities, but don't forget to join in the fun yourself!



ABOVE Shoot street displays about an hour before dusk to produce a balanced exposure with a strong blue in the sky

ABOVE RIGHT If you take your children to see Father Christmas, capture a couple of candids of him on his own

BELOW RIGHT No matter how humble they may be, many people now decorate their abodes for Christmas





SENSE OF DEPTH

Look for opportunities to create a sense of depth by placing elements in the foreground of the picture.

FLASHGUN

You can soften the light from a built-in flashgun by taping some tissue over the flash tube.

espite its commercialisation, for many people, Christmas is still a religious experience. They go to a church or cathedral for carols or midnight mass, or for other services. This is a time of year when the interiors of such buildings are at their most magnificent, and it's worth thinking about taking a few choice pictures in them.

There's no point in using flash inside a church, and tripods are often forbidden (or at least frowned upon), so you'll have to hold the camera, which makes ramping up your ISO setting virtually essential. Generally, you'll want to use the wide-angle end of your range to show the scale of the place, but sometimes it's better to go for a telephoto setting that allows you to concentrate on specific details.

Visiting Father Christmas

Those people with younger children will probably have no choice but to pay a visit to Father Christmas – and you might as well get a picture or two for posterity. On the whole there's no problem, but some places have their own photographer and it's not allowed, so check first. 'Santa' will normally be in some kind of grotto, which means you won't have much control over the backdrop or the lighting. In fact, you'll almost certainly need to use flash. If you have a separate gun with a bounce head, it's a good idea to use it. If not, you'll have to make do with direct flash and soften the lighting a little in the computer later on.

Part of the preparation for Christmas involves putting

up decorations and dressing the tree. Why not shoot a series of the type they show at the end of the television show, Changing Rooms, which you can then animate on the computer?

Having got the tree and set it up, place the camera on a tripod so it takes in the whole of the tree, along with a bit of the room. Try to pick a time when the lighting in the room's not going to change a lot during the period you decorate it. Depending on the weather, any time

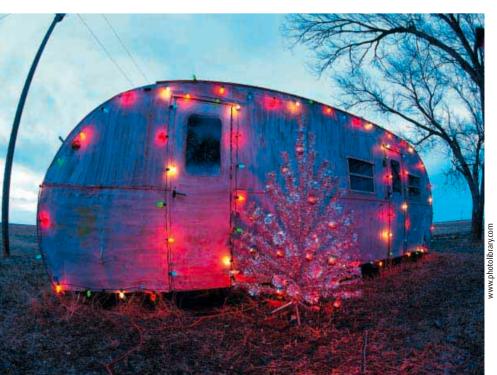


from the middle of the morning to the middle of the afternoon should be fine. The idea is to take a shot every time you change something. So you start with the bare tree, then take a picture after you put some tinsel on, then another after you add some baubles, and so on until it's complete.

The Christmas tree

If that concept doesn't appeal, you can just photograph the finished tree itself. If you have children, you'll add interest by getting some pictures of them putting the finishing touches to it, after the lights have been added. If they're young, kneeling down at their level, so you're shooting straight on rather than looking down, will give the most flattering perspective.

Use flash and you're likely to obliterate the lights from the tree, so place an ordinary table lamp behind or beside you, to illuminate the face and put catch lights in their eyes. The lights from the tree also look great when they're out of focus, so try some portraits with your little darlings - or your loved one - standing a few feet in front of the Christmas tree.







Christmas scenes

Other things you may want to photograph include hanging up the stocking, putting out food and drink for Father Christmas and, of course, unwrapping presents. With all these scenes you'll capture the mood best if you shoot by the glowing ambient light, such as candlelight, Christmas tree lights and so on. If there's not enough light, bring in a couple of table lamps or light some candles. You'll need to adjust the white balance if it's not automatic, and you may need to increase your speed rating or support the camera.

Aim to capture the surprised and, hopefully, delighted expressions of people as they open the presents. Choose the viewpoint that gives the most attractive backdrop, and clear up periodically so that the pictures aren't full of clutter and discarded wrapping paper.

Festive still-life studies

Once all the presents have been opened, you can get some pictures of everyone using them, playing with them or wearing them. You might also like to do some still-life studies before they start to get scratched and



ABOVE When taking shots outside, set the white balance so that it doesn't filter away the warmth

BELOW LEFT Easy to set up and easy to shoot, why not try your hand at shooting Christmas food?

scuffed. Find a suitable backdrop, and put together a few items in an interesting composition.

And while you're at it, do some Christmas studies of pine cones, fir branches and so forth. For maximum control, put together a little 'studio' using some anglepoise lamps and reflectors to fill-in the shadows.

Food and drink

Why not have a go at a bit of food and drink photography? Christmas is a time when many people over-indulge, and there's often a wider selection of goodies around than normal.

Here's a simple idea to get you started: take a couple of mince pies and put one in the foreground and another behind. Dust them with caster sugar and place them so the light from a window catches them nicely. Then set a small aperture to limit the depth of field, and crop in close using your zoom lens. To get more interest you might try cutting the mince pie at the front in half, or take a bite out of it.

Another option is to fill a bowl with nuts or dried fruit and shoot them from above. Make sure that you get the camera as square as possible to the subject so that everything is sharp. If there's not much light indoors, nip outside. The diffused illumination from a 'Tupperware' sky will give you an image with lots of detail while the raking light you get from winter sun will bring out the texture of the products.

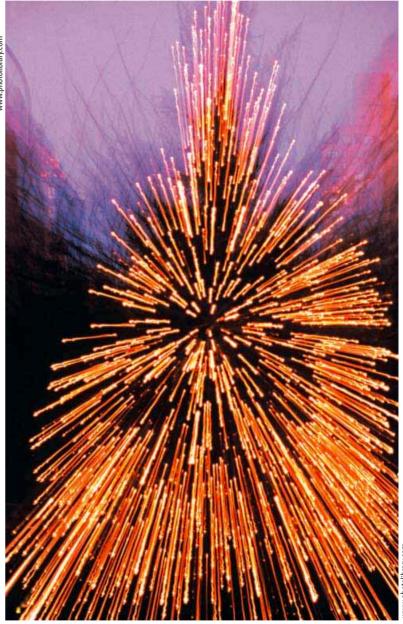
Glass has a reputation for being hard to photograph but why not find out for yourself? Stand a glass of wine in front of a large window, with a piece of black card on each side to help darken the rim and define the edges. Tip the camera so the glass is at a diagonal in the frame and you've got another great shot.

Then again, how about... well, you get the idea. Once you start taking pictures of food and drink you won't be

ZOOMING WITH AN SLR

If you have a digital SLR, it's possible to create an explosion effect by changing the focal length of your zoom lens during the exposure. It's a technique that can be used with virtually any subject, but it works particularly well when there is a strong focal point to the picture, such as the angel on top of a Christmas tree. Any zoom lens will do, but you should always start at the top end of the range, focusing carefully in manual. You'll need to anchor the camera to

a tripod, work in aperture-priority, set a shutter speed of four seconds, and zoom smoothly. Then check the results. It may take a few goes before you get it right. If necessary, increase the shutter speed so you don't have to rush. Once you've got the hang of that, try keeping the lens at its longest setting for half the exposure time, which will give you a picture in which the central part is pin-sharp, with a zoom burst coming out of it.



short of subject matter. Some people, however, don't ever give it a go because they feel they don't know how to compose the shots. Thumbing through the pages of cookery books or looking at the product packaging pictures will provide some inspiration. If you have an open fire, you might like to photograph the proverbial chestnuts roasting - there's arguably no better way of capturing the spirit of Christmas.



ABOVE The gothic glory of Christmas is best photographed at a traditional German market

BELOW RIGHT Use your zoom lens to fill the frame

ne of the largest, oldest and most famous Christmas market is held at Christkindlesmarkt in Nuremberg, which attracts a huge number of visitors each year. Set amid the architectural splendour in the main square of this picturesque German town, the market is a feast for photographers, with illuminated historic buildings and 200 stalls selling goods of all kinds. The atmosphere is fantastic, there's often snow on the ground, and you can enjoy an evening drinking mulled wine and eating gingerbread. It's hard not to come home with something really memorable.

Many other German towns and cities have similar markets, and you can book a reasonably priced two-day trip to Munich, Stuttgart, Berlin and Hamburg among others. Alternatively, the markets at Lille and Bruge are easily accessible by car or Eurostar.

EXPERT TIPS



FILL-IN FLASH

When photographing people in front of Christmas lights you'll need to use fill-in flash for a balanced exposure.

PANORAMAS

If you go to a Christmas market, consider producing a panoramic photograph by stitching several different images together

Closer to home

There are Christmas markets across the UK, including Bath, Lincoln, York, Rochester, Chester, Edinburgh and Warwick. Many draw their inspiration from the German markets. Some are on for just a couple of days; others run for longer periods.

As well as stalls where you can buy things, there are usually lots of things to see and photograph, including entertainers, puppet shows and lantern processions. It's in the evening, though, when these markets really come alive, as night begins to fall and lights are switched on. The most photogenic time to shoot is about an hour before dusk. The sky in your pictures will be a rich, deep blue rather than a dark, cold black. It's also easier to get a balanced exposure when there's still some light in the heavens. Depending on how bright

the illuminations are, you may be able to get away with holding the camera. Using flash would obviously kill the mood completely, but you'll almost certainly need to increase your ISO rating. There's often a lot of bustle at Christmas markets, and it may not be practical to carry, set up and use a tripod. A monopod, if you have one, can be a good compromise. If not, brace yourself against a wall or post, in order to minimise the risk of camera-shake.

Christmas illuminations

Even if they don't have a market, most cities and towns put up Christmas illuminations. Blackpool always has a celebrity to switch them on, and the Regent Street lights in London are world famous. Even if your local displays aren't in that league, there's usually something worth photographing, such as a large Christmas tree or an old-fashioned carousel.

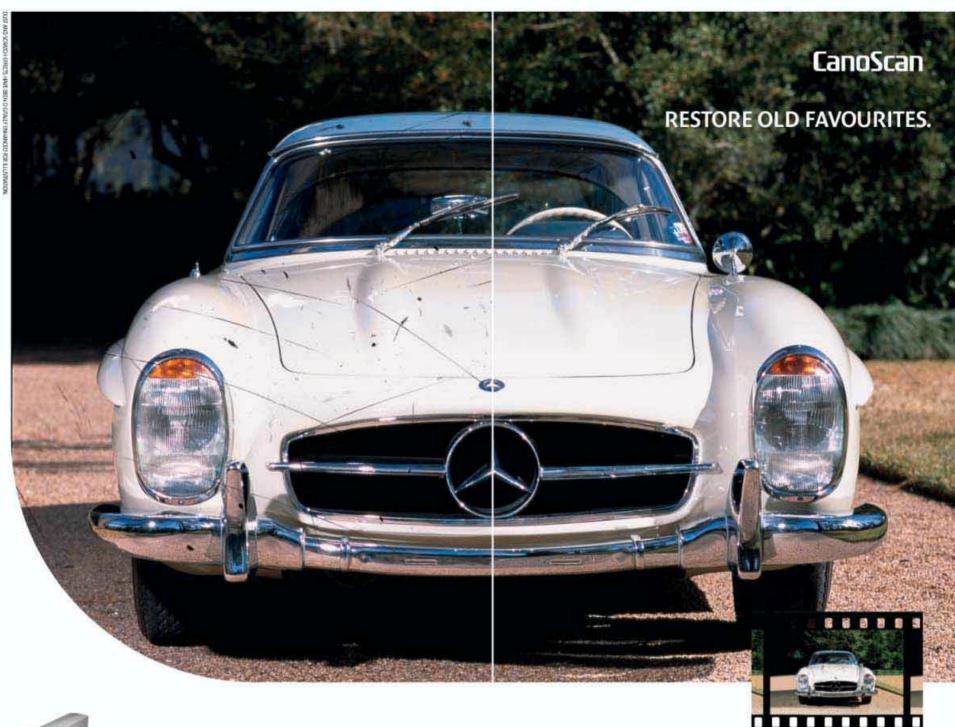
While we don't seem to get much snow these days, there's often rain, which can be extremely photogenic – with the lights glistening off wet streets or, even better, cobbled alleyways.

Don't be shy about photographing street entertainers at Christmas. Ask if you can take pictures (and give them a donation!) and most of them will pose to order, allowing you to get in nice and close so that you can fill the frame.

There may even be something that's worth photographing down your road or just around the corner. An increasing number of people take the opportunity of Christmas to cover the front of their house with lights and decorations.

Whenever you're shooting illuminations you'll need to watch your metering, as it's all too easy to suffer over-exposure with the lights burnt out. So review your pictures regularly and, if in doubt, under-expose slightly. you can always pull details out of the shadows, but it's impossible to recover lost detail in the highlights.







FARE

Bring your old classics into the digital world. As well as high-speed, high-resolution scanning, the latest CanoScan scanners apply FARE technology to restore old film. Unique to Canon,

FARE (Film Automatic Retouching and Enhancement) is an advanced process which uses infrared as well as conventional white light to automatically pick out and remove dust and scratches. Perfect for image archiving, photo printing and web use.



CanoScan FS4000US Dedicated film scanner Scans 35mm slides/negatives and APS film 4000 dpi

CanoScan 9900F Professional flatbed scanner ▶Scans medium format & up to 24 x 35mm negatives/8 slides ▶3200 x 6400 dpi

CanoScan 8000F High volume flatbed scanner ▶Scans up to 12 x 35mm negatives/4 slides ▶2400 x 4800 dpi

CanoScan 5000F Versatile flatbed scanner Scans 3 x 35mm negatives/2 slides 2400 x 4800 dpi

CanoScan LiDE 80 Ultra-slim flatbed scanner > Scans 1 x 35mm negative > 2400 x 4800 dpi











ninhibited fun is the name of the game at Christmas parties, so it's vital that you're completely at home with your equipment, and can shoot quickly and accurately without having to stop and think. This is particularly true if you're partial to the odd drink yourself.

The secret in these situations is to make the camera as foolproof as possible, so set it up so everything functions automatically. If you have a choice of modes go for program, so you don't have to worry about selecting the shutter speed and aperture. And, unless there's lots of light, set the flash to fire every time.

Suitable subjects

There are two main ways of taking pictures at parties. The first is to wander around looking for likely subjects and take some pictures when you see them. While some are bound to be posed shots, people will start to fool around when they spot the camera. Candids, though, are generally better because the results are more spontaneous, since people are not aware that you're there. It's easy to do this if you keep your distance and use your zoom lens to fill the frame. There is also less danger of over-exposure from the flash, though if

you're too far back you could suffer under-exposure. Somewhere around 3m is a good compromise.

Shoot from the hip

The other alternative is to let the party shoot itself. While this can be a lot more fun, the results are more unpredictable. Basically, get in the middle of the action with the zoom set to its wide-angle setting and just fire away, sometimes not even looking through the viewfinder or at the LCD monitor. Instead of worrying about technical perfection, try shooting from the hip and with the camera overhead – perhaps even passing it around for other people to use. This approach works particularly well when you've got a group of people dancing, and will really get everybody into the spirit of things.

The great thing about digital cameras is you can all look at the results there and then. People love fooling around, especially when they're under the influence, and providing you're not too precious about your equipment. you'll end up with some shots to remember.

If that all sounds too haphazard, and you'd like to try your hand at something more creative, why not have a go at combining a long shutter speed with a burst of fillin flash. You'll need to 'suck-it-and-see' on the exposure front, but if you get it right you have some blur from any background lights but with the subjects in the foreground frozen by the flash.

ABOVE Christmas is an ideal time to capture close family relationships

LEFT Get in the middle of the fun at parties

BELOW Shoot from the hip to capture spontaneity



EXPERT TIP



STEVE BAVISTER'S PRO ADVICE

RED EYE

To avoid red eye, either use the camera's red-eye reduction facility or shoot when people aren't looking directly at the camera.

ISO RATINGS

If you're shooting at close quarters, keep your ISO rating no higher



Try shooting from the hip and with the camera overhead – perhaps even passing it around



ABOVE What you're looking for with children at Christmas is spontaneous fun - so don't worry too much about technicalities, just capture the spirit

BELOW RIGHT A good way to produce a feeling of connection, is by having people touching



PRO ADVICE LOCK THE FOCUS

If you want to capture a face behind a pudding flame, start by locking the camera's focus on the person.

CREATE A SLIDESHOW

Collect your best 20 to 30 pictures and organise a 'slide show' on your computer monitor or TV.

SAY CHEESE?

Don't ask people to say 'cheese' get them to shout 'payday', 'whisky' or 'knickers' for a better facial expression.

hotographing a group of people is more difficult than shooting individual portraits. You've got to hold the attention of four, five, six or maybe a dozen or more people. And trying to ensure that they're all looking at the camera and the group itself is attractively organised takes some effort.

Indoor shots

Indoors, gathering people around a table can be effective, and it's a good time to shoot when everyone is sitting down for a meal. If you wait until the end of the meal, you'll have dirty plates and glasses everywhere, and if there are young children they may have spilt food down their clothes.

For small groups, sofas work well, with some people seated, others standing behind. If you have to use flash, try to keep everyone the same kind of distance from the camera, otherwise those who are close will be much brighter than those at the back.

If you're working with daylight indoors or room lighting that's balanced for tungsten, have a go at some more imaginative poses - such as one person in the foreground, sharp; and others behind, out of focus. You'll be forced into having a large aperture by low light levels that will give you minimum depth of field, so why not make a virtue out of a necessary? Place the foreground person over to the left, crop in tight, and you'll have an image with considerable impact.

Family portrait project

The Christmas period is a good time to carry out a family portrait project. Without the pressures of work, people will have more time and patience to pose for you, and

you'll also have the opportunity to take pictures of people that you might not see that often.

One option is to tailor each of the pictures to the subject, with an individual approach to the location, composition and lighting. Or you might prefer to set some kind of theme so they hang together as a series perhaps all against a plain, white background in an advertising style, with each person holding an object that says something about them, or lit simply in the same way by the light from a patio door. A project of this kind will get you focused, and give you a sense of accomplishment when you've finished it.

If you're stuck for ideas, flick through some magazines for inspiration. Use your imagination and make the most of what comes to hand. Simple anglepoise lamps can provide an improvised 'studio', or if it's not too cold outside, the crisp light available this time of the year is great for portraiture.

Put yourself in the picture

A family group isn't complete without the photographer, so make sure you include yourself in some of the shots, too. Happily, most digital cameras feature a self-timer that will allow you to do just that. The first step is to mount your camera on a tripod (if you haven't got one add it to your Christmas list now!). Then get everyone else arranged, with space left for where you're going to sit or stand, and frame the shot.

Having chosen the exposure mode and, if necessary, activated the flash, select the self-timer and fire the shutter. You typically have 10 to 12 seconds to get in place and say 'cheese'. In the days of film you'd need to take several pictures in case someone blinked. With

digital you can quickly check the shot's okay. If it is, you can resume the festivities. If the picture isn't quite right, you can repeat the process until it is.

Outdoor shots

Outdoors you've got a lot more freedom when photographing, but it's still a good ideas to find some natural feature, such as a wall, bench or steps, for larger groups. Think carefully about the picture before setting it up. You need to arrange the group so everyone can be seen clearly, and so they form an attractive composition. Go for a relaxed, informal arrangement rather than a formal grouping, which can all too easily look like a firing squad or football team.



- European Imaging and Sound Association Award
- Technical Image Press Association Award
- Can win a photography contest all by itself



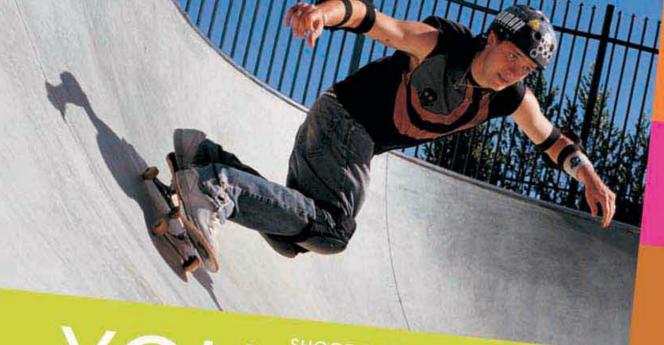




The Sony DSC-V1 compact digital still camera has been recognised for excellence by two prestigious associations. Could it be because it has a Carl Zeiss Vario Sonnar lens, 5 effective megapixel image resolution and full manual control? Or is it because it has a Hologram AF function that uses laser beams to help you focus properly in low-light conditions? Or maybe it's the NightFraming mode, which allows you to take pictures in complete darkness. But for all its advanced technical features, it can't accept an award from a compère. Nor can it compose a great picture. You have to do that.

Cuber-shot V1 MEMBRY STICK PRO





YOU

SHOOT PICTURES WHEN THE LIGHT IS IN FRONT OF YOU.
SHOOT PICTURES WHEN THE LIGHT IS BEHIND YOU.
SHOOT PICTURES WHEN THE LIGHT IS LOW.
DON'T LET THE LIGHT TELL YOU WHEN TO SHOOT PICTURES.



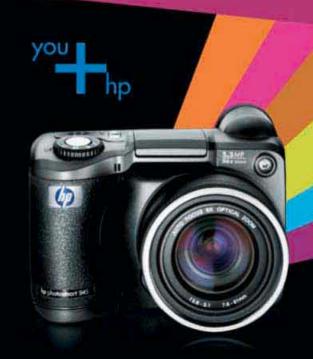
ADAPTIVE LIGHTING OFF

ADAPTIVE LIGHTING ON

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Section highlights...

OLYMPUS E-1

OLYMPUS'S LONG-AWAITED 4/3RDS CAMERA

PENTAX OPTIO 33WR

PENTAX'S PRACTICAL FAMILY CAMERA

SONY MAVICA CD500

THE CAMERA WITH A BUILT-IN CD WRITER

SOFTWARE

PHOTOSHOP CS

hit the streets, and it's looking good...







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The latest digital photo gear, reviewed and rated



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CAMERA TOURS ON OUR CD

View every main camera reviewed each month in 3D, on our CD! Rotate it, swoop around it – it's the next best thing to holding the camera in your hands

CAMERA RANGE GUIDE

We show you where each camera sits in the maker's range, and whether it's worth your while spending extra money for more features

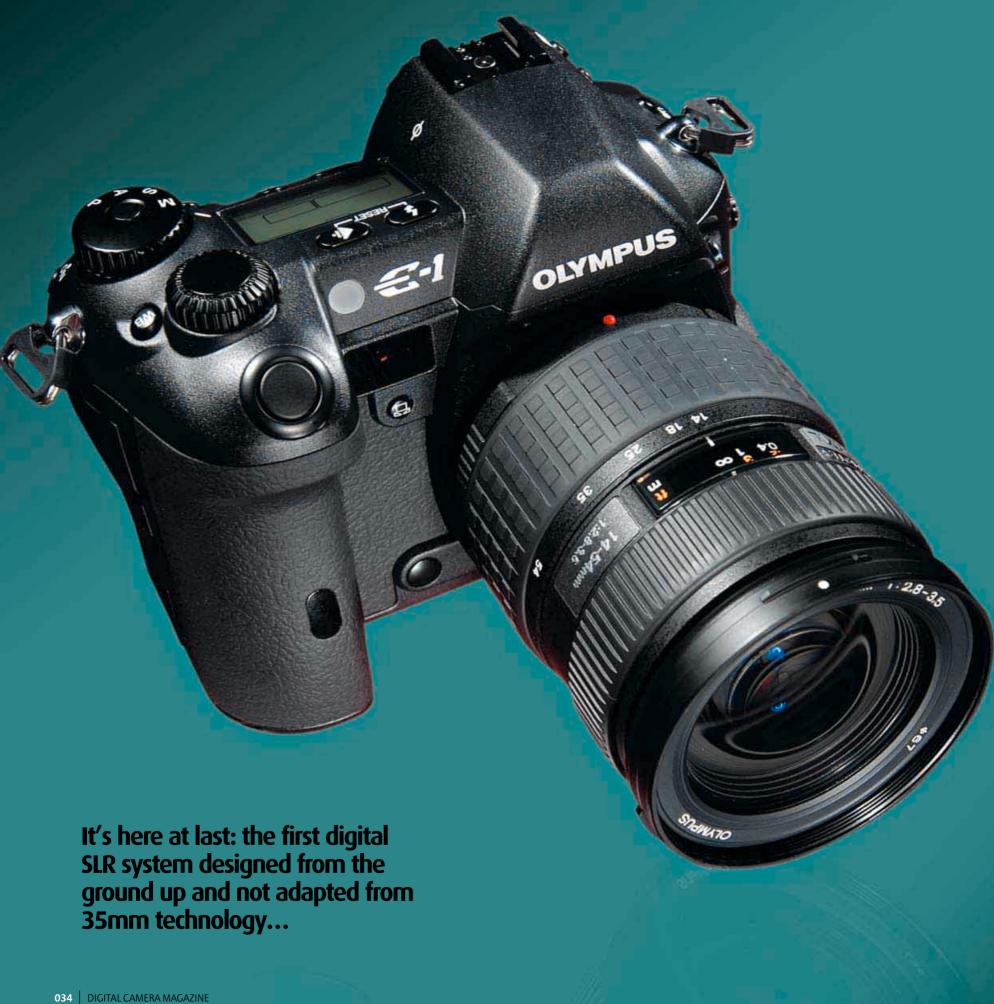


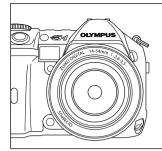
COMPARISON STRIPSSee how each camera performs against the others in our reviews – pull back the page and compare the right-hand strips



If you're looking to buy cameras or accessories, check out our brand new sister title, Digital Camera Shopper – it's packed full of expert reviews on everything to do with digital cameras!

REVIEWS 5-MEGAPIXEL CAMERA





OLYMPUS E-1

Price £1,820 including 14-54mm zoom (28-90mm equivalent)

Resolution 5 megapixels New E-system lens range Lens Memory CompactFlash (not supplied)

Battery Life Not quoted

0800 072 0070 www.olympus.co.uk Contact







SAMPLE IMAGES ALL THESE IMAGES CAN BE FOUND ON OUR CD/DVD

Olympus E-1

The long-awaited E-1 is a whole new camera system, which is designed from the ground up for professional digital imaging

t's here at last: the first digital SLR system designed from the ground up and not adapted from 35mm technology. The E-1 takes a whole new range of Zuiko digital-only lenses, fitted to a brand new 'four-thirds' lens mount.

The four-thirds system includes specifications for the lens fitting, lens throat diameter and lens flange-CCD distance. It's a purpose-designed digital system rather than a digital-analogue compromise to allow backwards compatibility with film systems. The specification includes a CCD that's slightly smaller than the sensors in rival SLRs, producing a focal factor of 2x.

Olympus claims the new lenses counter existing digital SLR issues: lack of wide-angle lenses, poor resolution and corner shading. All three have proved obstacles to digital SLR buyers in the past, but it's arguable whether they do now. Pentax, Canon and Nikon offer lenses optimised for their digital models, covering true wide-angle ranges. The corner-shading issue is an interesting one. Photographic film isn't too

The camera is built like a tank with a die-cast aluminium body, and the Zuiko lenses offer a similar impression of durability

fussy about the angle that light strikes it; CCDs are. If the light rays don't strike the CCD at 90 degrees (or close to it), the recorded light intensity is lower. The 'tele-centric' design of the Zuiko lenses is designed to eliminate this. On the other hand, why does the E-1 have a cornershading correction option in the menus?

Within the E-1 there is another clever feature: the sensors in digital SLRs can easily pick up bits of dust as you change lenses, and since they're solid-state devices, any dust they pick up with stay there, leaving spots on every subsequent images. Cleaning the ultra-fragile surface of CCDs is a technical, not to say scary, job. Olympus, though, has built in a Supersonic Wave Filter,

which is triggered each time you start the camera up (it can also be invoked manually), and it literally shakes dust onto a special adhesive tape below.

The E-1 system is a high-quality, expandable, professional system. The focal plane shutter is guaranteed for 150,000 releases; the camera itself is built like a tank with a die-cast aluminium body; and the Zuiko lenses offer a similar impression of durability. And so they should at the prices being charged. Neither the E-1 nor its lenses are cheap in the current SLR climate, so they've got a good bit to live up to.

Features

Price isn't the only worry. The E-1 uses a 5-megapixel CCD instead of the 6-megapixel chips in rival digital SLRs. It's not a big difference – just 17 per cent – but it's a bit of a psychological hurdle. After all, there are dozens of compacts on the market with the same resolution. However, the E-1's sensor is physically larger than that of most compacts, which plays a part in improving image quality. It has the same resolution, technically, as many compacts, but the detail rendition, tonal smoothness and noise control is on another plane.

Here's another thing to worry about, however: the E-1 has no built-in flash. You can buy an external flash. of course, and the Olympus FL-50 offers far more power and flexibility than any internal tube but, at £354, it's hardly an impulse buy, is it? Professionals might be inclined to dismiss built-in flashguns as amateur gimmicks, but it's not that simple. Weak they might be, but built-in guns can offer useful fill-in light for outdoor portraits and other awkward conditions.

The E-1 system is certainly flexible. In addition to the FL-50, you'll soon be able to buy ring flash and twin flash

ZOOM & COMPARE comparison system on the disc









Price: **£500** Megapixels: 4



Price: **£430** Megapixels: **5**



OLYMPUS E-1 KEY POINTS









LENS MOUNT

The E-1 is the first camera to use the new 'four thirds' open standard, which means other manufacturers may come on board in the future with their own lenses and cameras



The lenses for the E-1 were not originally designed for film cameras but are, in fact, specifically made for this camera, and optically optimised for digital sensors



SYSTEM ACCESSORIES

The E-1 is a true professional camera at the heart of an expanding system of lenses and accessories, including external flashguns, battery grips, focusing screens and eyecups

IN FOCUS PERFORMANCE

[01] NOISE

This was shot at ISO 800, and while there's some granularity creeping into the shadow areas, it's more than acceptable for an action shot, and a lot better than camera shake

[02] EXPOSURE ACCURACY

Two of our outdoor test shots revealed weaknesses in the FSP metering system. but here the E-1 has made no mistake, with a perfect balance in contrasty conditions

[03] COLOUR RENDITION
The auto white balance does an excellent job here, maintaining a clear, blue in the sky and good red/yellow reproduction. No need for white balance bracketing or



[04] DETAIL RENDITION

Marginally inferior to a 6-megapixel model, but really it's almost impossible to tell the difference, and the quality is far better than any digital compact

[05] AF PERFORMANCE

The E-1's three focusing points cover a comparatively narrow central area, but the AF itself is very fast and accurate

[06] SHOOTING SPEED

The 128MB buffer and fast processing mean that you can shoot up to 12 frames at 3fps. But the fast AF and shutter response mean that precise timing is possible too. We just about kept this rider out of the frame - not easy at



HANDGRIP The E-1 is is solid, and that rubberised grip makes one handed carrying – and

units for macros and close-up work – just make sure that you have your credit card ready. It's also compatible with studio flash systems, sporting a flash sync socket for cable connections.

The E-1 can shoot at 3fps, which is good though not exceptional, but it can maintain that speed for up to 12 frames, whether you're shooting JPEGs, TIFFs or RAW files. Now that is good. You can also tell whether the camera's 128MB buffer is close to full because its remaining capacity is constantly visible in the viewfinder.

If you're still smarting over the E-1's price tag, you'll be reassured by the level of photographic control available and its resolutely professional approach. You can bracket exposures over three or five frames, in 1/3, 1/2 or full step increments. You can also adjust the white balance manually in 300K increments. ('K' stands for degrees Kelvin, the technical way of reference to the colour temperature of light - its blueness or yellowness.) If you're not sure about the white balance, you can apply white-balance bracketing, saving a series of shots at different white-balance settings. Or shoot in RAW mode and sort it out later using the Olympus Viewer software.

The E-1 has support for the standard sRGB colour space and Adobe RGB. The colour space is the total range of colours the camera records, and how it records them. sRGB is best for most purposes, but Adobe RGB is designed for professional publishing environments, where images have to be optimised for four-colour CMYK professional printing presses.

Like other digital cameras, the E-1 uses 'firmware' which can be upgraded with improvements and enhancements. Some cameras have to be sent off to repair centres for this to be carried out, but the E-1's updates will be made available via the internet.

Build and handling

What's the camera like to use? First impressions are of a particularly heavy and solidly made camera. The image sensor's slightly smaller size doesn't translate into a smaller camera. The Olympus is slightly larger than the old E10/E20 and bigger, indeed, than the recently reviewed Canon EOS 300D and Pentax *ist D.

It's not small, then, but the E-1 is certainly grippable. The shape of the handgrip and its rubberised surface make this camera perfect for one-handed carrying, even for extended periods; and at eye level, with your left hand cradling the lens barrel, it makes a very stable shooting platform.

The start-up time's little more than a second, but don't go waiting for the LCD on the back to light up because it won't. You can't compose shots on the LCD of this or any other true digital SLR since the image is reflected up into the pentaprism for viewing and doesn't fall onto the CCD.

It's a bit of a surprise to discover just three AF points, and that they confer a comparatively limited area. Compare this with the seven-point wide-area AF system in the much cheaper EOS 300D, for example, especially since the Canon highlights the focus point used in the

The 14-54mm lens offered

with the E-1 is compatible

vith a 28-108mm on a



COMPARE TEST SHOTS







VIEWFINDER The E-1's viewfinder is sharp and crisp, and displays nearly all the



CONTROL The control layout will be familiar to anyone who's used an E10/E20. It's logical and efficient

It's entered the market at a price point that's a little higher than its competition, with a resolution that's slightly lower

viewfinder at the instant of shooting, too. What the E-1 does let you do is fine-tune the focus manually, even while you're still in AF mode. This isn't just for improving focusing accuracy but for maximising the depth of field by focusing between two objects you want to render sharply instead of choosing just one.

The E-1's AF is fast, too. It's far faster than any compact and as good as its digital SLR rivals. Combine this with the fast sequence shooting and the range of wide-aperture telephotos in the digital Zuiko lens range, and you've got a comparatively affordable press/sports camera.

Olympus doesn't quote battery life expectancy for its cameras, but the E-1 comes with a big, rechargeable lithium-ion pack of similar proportions to that in the EOS 300D, which bodes well.

The information displayed in the viewfinder is clear and comprehensive. The only thing missing is the ISO setting. Does that matter? It does if you've just shot an entire motor sport meeting plus a set of staged still-lifes at ISO 800 by mistake.

Image quality

Which brings us neatly onto image quality. The E-1 uses a Full Frame Transfer CCD as opposed to the Interline Transfer chips used in some other cameras. The upshot is bigger photodiodes, a higher signalnoise ration and improved dynamic range.

Certainly, the E-1's images are very good, even at ISO 800. Noise is visible but well controlled at higher ISO settings, and the colour saturation and contrast border on the exceptional. Most of the time you'll be working at ISO 100 for maximum quality, of course, and it's shots taken at this setting which are going to be compared directly with those from 6-megapixel

There's no doubting the E-1's build quality, handling, features and design. The technical difference between this camera's 5-megapixel images and those of its 6-megapixel rivals is too small to really quibble about, either. The E-1 is the centre of a flexible, versatile new lens and accessory system that, judging by the body/lens combination reviewed here, will be built to the highest professional standards.

And yet, the way things stand at the moment, the E-1 system has a big hill to climb. It's entered the market at a price point that's a little higher than its competition, with a resolution that's slightly lower and with no existing lens range/analogue camera compatibility. Other digital SLRs benefit from a crossover market; this one requires a full-scale investment in a whole, new system.

rivals (our test shots were taken at this setting).

A sound investment?

The vanguard of a new system, but has Olympus gone out on a limb?

The E-1 looks pretty expensive, especially in the light of that 5-megapixel CCD. What's more, its lenses and accessories carry hefty price

OLYMPUS E-1 PERFORMANCE

SKIN TONES



The colour rendition is good in our shot. despite the coolness of late afternoon shade

CON Watch out for underexposure, particularly with light backgrounds and white clothing

OUTDOOR SHOTS



range are good, despite this dull test shot

CON Why so gloomy? The same thing happened to our outdoor test shot on the CD

INDOOR SHOTS



The 14-54mm zoom's wide angle is an

CON The ESP metering took a bit too much notice of the bright lamp and window

IMAGE QUALITY



The larger sensor area means images are more detailed than a 5MP compact

CON The same money will get you a 6MP rival with cash to spare

FEATURES IMAGES BUILD



OLYMPUS E-1 FULL SPECIFICATIONS

5-megapixel, 17.4mm x 13.1mm 5.5MP CCD Tested with Olympus Zuiko 14-54mm, also available body-only

Focus Auto, manual, minimum focus depends on lens in Exposure modes Program AE, shutter-priority, aperture-priority,

Metering Multi-pattern ESP, centre-weighted, spot 1.8-inch, 134,000 pixels

Monito +/-5EV in 0.3EV or 0.5EV steps AE compensation

Batteries Battery life AC adaptor

Video output

Other features Image storage Weight

Transfer

PAL or NTSC Exposure and white balance bracketing CompactFlash

Lithium-ion rechargeable BLM-1 Not quoted 660g body only, without batteries or memory card 141mm(w) x 104mm(h) x 81mm(d)

USB 2.0. FireWire Olympus Viewer 1.0

> PENTAX *IST D (body only) 6.1MP





REVIEWS 3.2-MEGAPIXEL CAMERA



PENTAX OPTIO 33WR

Price Resolution 3.2 megapixels f2.8-3.9 2.8x zoom Lens Memory 16MB SD card

Battery Life 125/540 shots (using alkalines/supplied disposable Lithium CR-V3 battery)

Contact 01753 792 731 www.pentax.co.uk







SAMPLE IMAGES ALL THESE IMAGES CAN BE FOUND ON OUR CD/DVD

Pentax Optio 33WR

It's water-resistant, yes, but so what? Ah, but the Optio 33WR has a lot more going for it than that...



Check out our brand new image comparison system on the disc!







OPTIO 550 Price: £400 Megapixels: 5



OPTIO 450 Price: £350 Megapixels: 4



OPTIO 33WR Price: £300 Megapixels: 3.2

OPTIO S



Price: **£300** Megapixels: 3.2



OPTIO 33L Price: **£200** Megapixels: 3.2

entax is developing quite an interesting camera range. At the top end, its enthusiastorientated Optio 550 (the 555 is imminent) and Optio 450 face tough competition from Canon, Nikon and Olympus models, but they are competitively priced right now.

Meanwhile, the very different and incredibly slim Optio S remains one of the most attractive miniature cameras around. And Pentax's bargain-basement 3.2megapixel Optio 33L is better value, now turning up for as little as £200.

So what about the Optio 33WR? The 'WR' stands for 'Water Resistant'. Not 'Water Proof', you'll note, so you can't go swimming with it, though it's going to cope better with life on the beach than other cameras. Pentax advises that you do brush sand and grit out of the way if you're going to open the battery/card compartment, and wipe off any drips of moisture that might creep in but, otherwise, the 33WR is both weatherproof and washable.

What else can it do?

Apart from its water-resistant design, the Optio 33WR looks like a pretty straightforward, basic 3.2-megapixel camera. Though closer inspection reveals that it's not as basic as all that, and that there are some handy photographic controls and smart design touches buried inside that chunky exterior.

The first surprise is this camera's start-up time. The LCD on the back lights up barely a second after you've pressed the power button. Don't underestimate how useful this is - if you're carrying the camera round on a day out, the ability to grab shots as they present themselves is crucial. The time it takes the three or four rival cameras to fire up can often mean that you miss the shot (or that you can't be bothered to attempt it).

The next surprise is just how many different scene modes this camera's got, and how easy they are to access. Just press down on the navipad, and they appear as a circular 'wheel' on the LCD. You just press left and right on the navipad to cycle through them. The scene



modes include landscapes, night scenes, night portraits, portraits, sand and snow, macro, sunset, fireworks, 'snap', movie and panoramic options.

In the panoramic mode, you can take a sequence of overlapping shots and stitch them together later on your computer. The camera displays the edge of the last shot that's taken as a semi-transparent overlay at the edge of the screen, which helps you to position it for

Other photographic controls are just as accessible. If you need to apply exposure compensation when you take a shot, just press left or right on the navipad. Sounds too easy to do accidentally? The first press simply activates the EV compensation, displaying its icon on the screen; you need another press to actually change the setting.

You have to dip into the menus to access more advanced options, but they're clearly laid out and the navipad's big and positive. Here you can change the quality setting, white balance, metering pattern (multisegment, centre-weighted and spot), ISO, sharpness, saturation and contrast.

The white-balance option could do with being a little more accessible, but it's a pleasant surprise to discover that the Pentax offers three metering patterns.

You'll be even more surprised to discover that the quoted 1cm minimum macro distance is not a misprint. The more you use it, the more you realise that



PENTAX OPTIO 33WR PERFORMANCE



SKIN TONES



It's late afternoon and the light is cool but the Pentax has comp

CON The Optio 33WR's colour response isn't always predictable

OUTDOOR SHOTS



Outdoor shots have sharp detail, accurate exposures and saturated colours

The low sunlight has been warmed up still further by the Pentax

INDOOR SHOTS



Shutter speeds go up to 4 sec, so with

Nith no slow flash mode you have to

IMAGE QUALITY



The lens's compact optical design doesn't

Shots taken at ISO 100 are good, but

higher ISOs introduce noise and softness





to take no more than a second to start up - amazing The non-extending lens design helps, presumably







The LCD's nice and sharp, with a good refresh rate. You can get it to display a live histogram while you're



NAVIPAD Pressing downwards in shooting mode displays the camera's scene modes in quick-to-navigate on-screen

It's water-resistant, sure, but it's also rugged, easy and fast to handle, practical, pocketable and photographically quite sophisticated

this is a versatile photographic tool, despite its plain, functional appearance.

Two more buttons on the back let you change the flash mode (no slow flash option, but you can achieve the same thing with the night portrait scene mode) and the focusing mode. Here, the choice is between the standard autofocus option, infinity focusing (fine for grabbed shots of anything more than a couple of metres away) and manual focusing.

Ease of use

It really is hard to find fault with this camera. The styling looks awkward and contrived, but it actually handles very well. Its slab-sided construction provides a good, uncluttered surface area for the controls to spread out, and there are no protuberances, knobs or switches to snag on your

pockets. The rubberised corners stop it sliding about and you can stand the camera up for self-timer shots or lie it flat in your briefcase for taking to work.

There is one minor annoyance to do with the lens, and that's the fact that it takes a fraction longer to zoom in and out than most lenses. It seems to need an extra moment or so to slide the internal elements into place and refocus, presumably because of the compact non-extending design.

The autofocus speed, though, doesn't seem to be compromised at all. Normal wide-angle shots are focused very quickly, and you can either wait for focus confirmation with the shutter release halfpressed, or just stab the button and wait half a second or so for the shot to be taken.

Telephoto shots focus a little slower, but the audible focus confirmation is unmistakable, so

there's no uncertainty about whether the camera's ready to take the shot or not.

Results and conclusions

Lastly, there's the picture quality. There are no problems here at all. Images are as sharp, colourful and punchy as you'll get from the numerous other 3-megapixel models on the market right now. The water-resistant design might hit you in the pocket a little, but it doesn't hurt the photographic quality.

The price is the only thing, really. At £300 the Optio 33WR is roughly £50 more expensive than many comparable 3-megapixel models, and £100 more than its cheapie stable mate, the 33L, is selling for in some places. The weatherproof Mju 300 must be one of the Pentax's strongest rivals right now - it has super-slick metal construction, pocket-sized dimensions and is discounted to below £300.

Nevertheless, the Optio 33WR proves an unexpectedly likable camera. It would be a really good 'family' camera. And you know, thinking about it, we'd be hard-pressed to name another camera that's as easy for an under-ten to use and better suited to surviving it.

Senso

Focus

Flash

Meterina

PENTAX OPTIO 33WR FULL SPECIFICATIONS

3.2-megapixel, 1/2.7-inch 3.3MP CCD Pentax f2.8-3.9 2.8x zoom Auto, manual, 1cm in macro mode Program AE, scene modes Multi-segment, centre-weighted, spot 1.6-inch, 84,000 pixels +/-2EV in 0.3EV steps Auto, on, off, red-eye PAL or NTSC

Image storage Battery life

AC adapto Weight Dimensions Transfer Software

125/540 shots (using alkalines/supplied disposable Lithium CR-V3 battery)

160g (without battery or card) 81.5mm(w) x 76mm(h) x 30.5mm(d)

Windows 98/Me, 2000 or XP. Mac OS 8.6 or later

WORTH A LOOK

AE compensation

Movie recordina

Video output





. Water-resistant design

320 x 240 at 15fps with sound







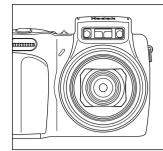




It's chunky, tough, easy & versatile. If only we scored tor practicality...

The Optio 33WR hits the nail on the head in so many unexpected ways. The perfect family camera? Not a recognised market, but surely a

REVIEWS 4-MEGAPIXEL CAMERA



KODAK DX6490

Price Resolution 4 megapixels f2.8-3.7 10x zoom Lens Memory 116MB internal, SD card slot **Battery Life** 126-210 shots (depending on usage) Contact 0870 243 0270 www.kodak.co.uk







SAMPLE IMAGES ALL THESE IMAGES CAN BE FOUND ON OUR CD/DVD

Kodak DX6490

What price ordinary 3x optical zooms now? Kodak's the latest maker to introduce a massive 10x 'ultra-zoom' camera...

















odak's the latest maker to launch a 10x zoom camera, with the DX6490 model reviewed here. It's joining the Minolta DiMAGE Z1, HP PhotoSmart 945, Fujifilm FinePix S5000 and Olympus C-750UZ

The Kodak has little to offer, technically, that we haven't seen before, but it does feature an unusually large 2.2-inch LCD 'Indoor/Outdoor' LCD. As the name suggests, this is designed to perform both in bright outdoor lighting and gloomier indoor conditions. It does, but only up to a point.

Indoors, it undergoes an odd switch between a fullcolour display and a mono version that cuts in when light levels fall too low – presumably in an attempt to maintain display image quality. Very odd, especially when other cameras seem to manage perfectly well in full colour all the time.

While we're on the subject of low light, the Kodak has another strange characteristic. In program AE or aperture-priority mode, it won't set a shutter speed slower than 1/8 sec. Though, oddly, you can set slower speeds manually in shutter-priority or manual mode. The upshot of this is that you can end up with underexposed low-light shots because the camera doesn't have the shutter speeds to cope with them.

Easy EasyShare?

Back to the features. Like other Kodak models, the DX6490 uses the company's EasyShare software transferring and organising your photos. You can also tag photos while they're still on the camera for emailing. printing and storing as favourites, and the appropriate actions are carried out by the EasyShare software when they're transferred to your computer.

It's intended to be as user-friendly as possible, and it certainly does explain things in simple terms for beginners. However, it doesn't teach beginners anything about image management and manipulation in broad terms and, if you already know the basics, you're more likely to find it irritating and restrictive. You can,



however, sidestep the EasyShare system altogether and transfer images with Windows Explorer and edit them using any third-party image editor.

You'll find this a lot easier if you invest in an SD memory card because the camera doesn't come with one as standard. Instead, pictures are saved to the camera's 16MB internal memory. It's not really enough for the 4-megapixel resolution, and far less convenient than removable memory.

Kodak's EasyShare system starts to look anything but easy once you learn that the DX6490 is compatible only with the camera dock 6000 and not earlier models, and if you buy the 6000 separately it comes with NiMH rechargeables you shouldn't use with this camera, and

you'll need to use the special camera dock insert provided with the camera... oh, please.

Unexpectedly powerful

What is interesting about this camera is the increased photographic control available compared with other Kodak models. As well as a standard program AE exposure mode and a small selection of scene modes (sports, portrait and night scene), you can choose from the four PASM (program AE, aperture-priority, shutterpriority and manual) modes normally associated with higher-end models. You also have a choice of three metering modes (multi-pattern, centre-weighted and spot), making this the most advanced Kodak yet.



KODAK DX6490 PERFORMANCE





The Kodak turned in restrained but accurate skin tones in our test shot

Up-close, the Kodak's noise-reduction is a little too effective, smothering fine detail

OUTDOOR SHOTS



Bright, saturated, technically good shots in a range of outdoor conditions

Fine detail is crisp, but there's a good deal of in-camera sharpening going to on

INDOOR SHOTS



No slow sync mode, but the night scene

N The results in our test looked disappointingly flat and 'grey'

IMAGE QUALITY



While the handling isn't all it might be. there's little wrong with the image quality

CON How much do you need that 10x zoom? It has an impact on price and value

FEATURES IMAGES BUILD

FLASH RUTTON You flick this button to pop up the flash, and you'll need it in dim lighting because of the Kodak's limited slow shutter







The Kodak's 2.2-inch Indoor/Outdoor LCD is sharp enough, but switches abruptly to a mono-only display in



NAVIPAN Kodak favours these multiposition power/mode dials with their central 'finger sticks'. We don't...

To make any headway against its big-name rivals, the Kodak DX6490 has to be cheaper or better. Sadly, it's neither

However, it's no use having all these options if they're not easy to get to, and this is where the Kodak falls down. It uses a single rotating dial on the back to power the camera up and switch between its main operating modes. A small, raised lug gives your right thumb enough purchase to turn the dial, but it's still too stiff. Worse still, if you want to get to the Night Scene mode, for example, you have to click through all the others to get there.

A full set of PASM modes is all very well, but the Kodak betrays its amateur leanings by combining them under a single setting. You then have to use a further control to switch to the one you want. This is a 'jog dial' control wheel positioned on the front of the handgrip – rotate the dial to choose one of a number of options, and then press on the dial to 'OK' it.

You have to use the jog dial in PASM mode to first select which parameter you want to change from four on-screen options. These are the exposure mode, aperture setting, shutter speed and EV compensation. Once you've chosen which parameter you want to change, click the jog dial to select it, and rotate the jog dial again to change that particular parameter. To alter a different parameter you have to click again, rotate the dial to select the new parameter, click again and rotate the dial to alter it... it's a very elegant and efficient combination of controls, but it's just too darned fiddly.

Good shots

This is not a Kodak-bashing exercise. Far from it. Kodak cameras routinely provide a great blend of value, robustness and image quality. Indeed, in

terms of photographic performance, the DX6490 really is very good. Images are sharp, well exposed and colourful – and without that exaggerated, synthetic colour that was a trademark of some earlier Kodak models.

The start-up time is a little leisurely at around four seconds, and the AF does hunt around a bit in low light but, in most conditions, the Kodak is responsive and quick, and while focusing isn't instantaneous, it's of the usual order of half a second or so. Ultimately, though, the DX6490 is going to have to come down from its launch price if it's to compete successfully against the Minolta DiMAGE Z1, Fujifilm FinePix S5000 and Olympus C-750UZ.

Head-to-head

The FinePix S5000 is probably its most serious rival, and a side-to-side comparison reveals just how far behind the Kodak is. Currently, the FinePix is cheaper, better made, clearly laid out, easier to get the best from and infinitely more satisfying to use. To make any headway against its big-name rivals, the Kodak DX6490 has to be cheaper or better. Sadly, it's neither.

Senso

Focus

KODAK DX6490 FULL SPECIFICATIONS

4-megapixel, 1/2.5-inch 4.1 MP CCD Schneider-Kreuznach Variogon f2.8-3.7 10x zoom Auto. 12cm in macro mode Program AE, aperture-priority, shutter-priority manual, and scene modes Multi-pattern, centre-weighted, spot 2.2-inch, 153,000 pixels Metering

AE compensation +/-2EV in 0.3EV steps Auto, on, off, red-eye Video output PAL or NTSC 320 x 240 at 24fps with sound Movie recording

Other features Image storage Batteries Battery life AC adapto Weight Dimension: Transfer Software

EasyShare image tagging and organisation 16MB internal memory, SD card Lithium-ion rechargeable, KLIC-5001 126-210 shots (depending on usage)

310g (without battery or card) 99.6mm(w) x 79.9mm(h) x 81.2mm(d) Kodak EasyShare

Windows 98/Me, 2000 or XP. Mac OS 8.6 Or 9.x, OS X 10.1.2 or late















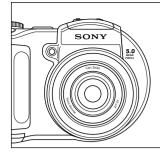
HP PHOTOSMART 945



It's new, it's powerful and it's it's not enough...

Kodak's good at designing snapshot cameras for beginners. But when it comes to more advanced enthusiastorientated markets like this one, it's another story

REVIEWS 5-MEGAPIXEL CAMERA



SONY MAVICA CD500

Price £550 Resolution 5 megapixels Lens f2.0-2.5 3x zoom 156MB 8cm CD-R/CD-RW Memory **Battery Life** 220 shots/110 minutes Contact 08705 111 999 www.sony.co.uk







SAMPLE IMAGES ALL THESE IMAGES CAN BE FOUND ON OUR CD/DVD

Sony Mavica CD500

Cut out the middle man! Write your photos direct to CD with the Mavica CD500, and save yourself time, if not money...





OPINIONS & SHOPPING
Post your views, see what other readers think then buy this camera! dcmag.co.uk/sonv







Price: **£500** Megapixels: 5 DSC-P10 Price: **£350**



MAVICA FD200 Price: **£300** Megapixels: 2

Megapixels: 5

emory cards aren't the only way of storing images within digital cameras. Indeed, for many users, they're not the best way, either. It's the cost of memory cards and their comparatively limited capacity that's the biggest problem, and one that the Sony Mavica CD500 addresses. It doesn't use memory cards at all, relying instead on a built-in CD-writer to burn images directly onto CDs.

They're not ordinary CDs, though. These are special 8cm miniature versions with a capacity of just 156MB instead of the usual 650MB. Otherwise, it's like using normal writable CDs. The 8cm discs will even fit into most CD trays, and for those occasions where they don't work, an adaptor's provided.

Using CDs to store images makes a lot of sense. Sony's own recommended media are more expensive than conventional blank CDs, at £3 to £5 each, depending on the quantity you buy. This is still a lot cheaper than memory cards, though - 156MB for £3 works out at 2p per megabyte. You can save shots straight to a comparatively cheap archiving medium on the spot, instead of having to transfer shots to your computer and burn CDs manually.

Writing process

There are certain (though surprisingly few) operational limitations. The CD-burning process doesn't consume as much power as you might imagine - the Mavica can shoot around 220 shots on a single charge, which isn't bad - but the CDs used do need special preparation. Blank CDs first have to be 'initialized'. a process that takes a few seconds and has to be carried out on a flat surface with the camera completely still. And before a CD can be removed, it has to be 'finalized'. Again, this takes several seconds, and the camera has to be left undisturbed on a flat surface.

The CD mechanism does compromise the Mavica's performance in two other respects. It takes longer to 'write' images once you've shot them, and start-up can occasionally take longer as the camera checks the disc. The most noticeably penalty is during playback - images



are first displayed at low resolution, and the camera takes several seconds to read the data from the CD and render a full-res version.

Handling and controls

Otherwise, though, taking photographs with the Mavica is just like using any other digital camera. It's a lot bigger and more solid feeling than any other non-SLR model, but that's a positive advantage if you like your cameras chunky

You might imagine that a camera that writes images direct to CD is a specialised business tool, rather than a camera for enthusiastic photographers. Nevertheless, Sony has built in some more advanced photographic

options into the CD500, and made them clear and accessible, too.

For example, you get a full set of PASM (program AE, aperture-priority, shutter-priority and manual) exposure modes, and each one has its own setting on the big and chunky mode dial. There are scene modes, too (Twilight, Twilight Portrait, Landscape, Portrait, Snow and Beach), but these share a single SCN position and must be selected using the menus – they're secondary, then, in the control layout, which is how serious photographers will prefer it.

The controls themselves deserve some comment. The Mavica uses a jog dial mounted on the back of the camera to control the shutter speed, aperture







The Sony's 2.5-inch LCD is good for composing still shots and movies, and playing them



NAVIPAD The Sony's control layout is logical and effective, but that navipad is just too small and vague, and the central 'OK' action is difficult to get right

You'll be impressed at how a camera that employs such unusual technology can end up so versatile and satisfying to use

setting and EV compensation. Kodak's adopted an identical system for its DX6490 (reviewed this issue), though the Sony's controller is just a bit more positive and controllable.

In order to change the metering pattern (multipattern, centre-weighted and spot), white balance, quality setting and other options, you need to press the Menu button. This will display the usual Sony menu structure, with menu headings running along the bottom of the screen and the menus opening upwards. It works a little better on this camera than it does on other Sony models (maybe because the 2.5-inch LCD used here is much larger and the menus less cramped), but the five-way navipad is disappointingly vaque, especially if you're trying to activate the central OK action.

Performance

The lens on the front of this camera looks rather familiar. What are the chances of Canon, Leica and Carl Zeiss all producing a 7-21mm f2.0-2.5 3x zoom independently? We've no way of telling whether this lens is optically different from these other variants to justify the different branding, but it does go to show that the digital camera world is smaller than you think.

Whatever its origins, the lens does a good job and the extra speed from the fast f2.0 maximum aperture is especially useful in dim lighting. The Sony's AF speed is good, too, though it would help if the focus confirmation was more positive and the shutter was a little less easy to trip while you're keeping it half-pressed.

Like other cameras, the Sony has a multi-point AF

system. Here, there are three horizontal AF points and two more, one above and one below this row of three. And, like other cameras, the Sony allows you to choose the focus point manually. It's much easier here than usual, though, thanks to the slick action of the jog dial.

The Sony's image quality is really very good. The contrast is maybe slightly down on what the best of its rivals can do, and the same goes for ultimate detail rendition, but the Sony's still very good by any standards, and you're not likely to be disappointed.

Indeed, you'll be impressed at how a camera that employs such unusual technology can end up so versatile and satisfying to use. It doesn't cramp your photographic style at all and turns in some very good images. It's a little expensive compared with ordinary 5-megapixel cameras, but not excessively so.

Indeed, it compares quite favourably with the likes of the Canon PowerShot G5 and Olympus C-5050. The Mavica CD500 isn't the expensive novelty the technology might lead you to imagine. It's actually a very interesting alternative solution for any photographer.

SONY MAVICA CD500 PERFORMANCE



SKIN TONES



Very nice looking skintones (possibly a

CON A touch more contrast and fine detail definition wouldn't hurt in general

OUTDOOR SHOTS



Outdoor results from the Mavica are very good indeed

CON A bit more contrast would be good. Its shots still look a fraction on the flat side

INDOOR SHOTS



Very good indoor shots, aided by that ns and simple flash option

CON The LCD does grain up noticeably under indoor lighting, developing a strong red cast

IMAGE QUALITY



PRO Fine detail is very good, though not exceptional by today's 5-megapixel standards

N Lacks the 'punch' of the Canon PowerShot G5, say, or Olympus the C-5050



SONY MAVICA CD500 FULL SPECIFICATIONS

Senso Focus

Metering AE compensation Video output

5-megapixel, 1/1.8-inch 5.3MP CCD Carl Zeiss Vario Sonnar f2.0-2.5 3x zoom Auto, manual, 4cm in macro mode Program AE, aperture-priority, shutter-priority, manual, and scene modes Multi-pattern, centre-weighted, spot 2.5-inch, 123,000 pixels +/-2EV in 0.3EV steps Auto, on, off, slow, red-eye PAL or NTSC 640 x 480 with sound

Other features Image storage Batteries Battery life AC adapto Dimension: Transfer Software

Low-cost permanent image storage 8cm CD-R/CD-RW Lithium-ion rechargeable, NP-FM50 220 shots/110 minutes

606g (including battery and disc) 138.5mm(w) x 95.7mm(h) x 103.1mm(d)

Pixela ImageMixer Windows 98/Me, 2000 or XP. Mac OS 8.5.1, 8.6,



















Expecting a portable CD-writer with a lens? The reality's slicker

The Mavica's a big camera, true, but that proves the only drawback to its unique storage system. Price, performance and photographic control are all surprisingly competitive

FEATURES IMAGES BUILD VALUE

Adobe Photoshop CS



IMAGE EDITOR After all the speculation, it's finally here. Photoshop 8 has been unveiled and we've got our hands on a final pre-release copy...



PHOTOSHOP CS

Price £605 Manufacturer Adobe Tel 0870 606 0325 Website www.adobe.co.uk



ittle introduction is necessary for Photoshop, the world's favourite image-editing software. It has been going for years and Adobe has now released the latest update, which we first reported on in Viewfinder, way back in issue 12.

Photoshop 8 has been given the new moniker of Photoshop CS to bring it in line with related Adobe titles Illustrator, InDesign and GoLive which, along with Acrobat Professional 6.0, form part of the new Creative Suite bundle. By grouping the titles together in such a way, Adobe plans to synchronise future upgrades of its titles in an attempt to improve cross-application compatibility.

And tying the whole bundle together is a new complimentary asset management system known as Version Cue which ensures documents are available across the board. Fortunately, you can still get hold of Photoshop on its own, so if the entire suite is too much, read on as we explore what's good, bad and ugly about everyone's favourite image editor.

Despite its name, Photoshop, has become much more than a simple photo-editing application; graphic designers, video producers and web designers all have their own slant on how the flexible tool can be used.

First impressions

The interface remains untouched, so existing users will be happy jumping straight into their familiar environment. The File Browser proved to be an essential feature in 7.0, and this has been enhanced to become a more self-contained component including keyword association, supporting flags and editable metadata, making the organisation of your assets more manageable.

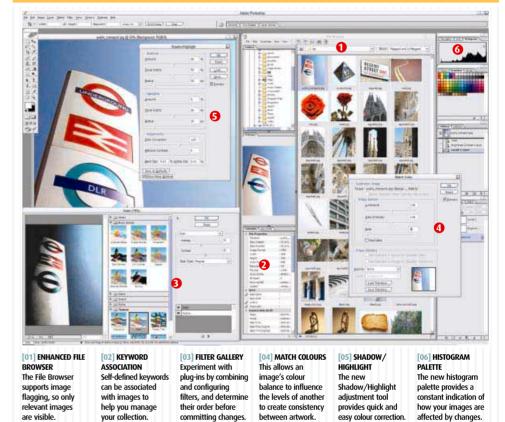
With its new-found support for 16-bit images there is additional help with colour management, both through the regular help files, as well as through the Welcome screen. This provides access to tutorials and features to help users get up to speed with the new version.

Work can now be distributed through various means, including the creation of web photo galleries and, more powerfully, with the ability to share projects within multi-page PDF documents. The influence of the Layer Styles method comes into play with the new Filter



The new Welcome Screen helps users get to grips and manage the software through tutorials

The interface in more detail



Gallery, where multiple filters can be experimented with before final application is made to the image

More specifically for the photographer are various additions to help streamline the production flow. Raw images can now be worked on directly through new calibration controls and customised profiles for specific camera models. Colours can be matched across files to create consistent results, and the new Histogram palette provides a constant display as a visual indicator of any amends you may be working on.



The Histogram palette in expanded mode gives an overview of individual channel levels

Maintaining balance

Similarly, exposure problems are made less of a headache using the new Shadow/Highlight Adjustment, which preserves overall balance while intelligently correcting problem areas. And the science of colour replacement also becomes much simplified through the new Colour Replacement Tool. Lens blurs can be emulated through the new filter, panoramic stitching becomes possible, and cropping and straightening scanned images is virtually automated.

The number of new features and enhancements goes on and is far too long for us to dwell on over a single page, especially when you consider we haven't even touched on areas that will be of specific interest to other media. This includes editable text along a path, nested layer sets and non-square pixels. not to mention the changes to Photoshop's sister application, ImageReady.

Suffice to say, that Photoshop CS will continue to dominate the graphic-editing market as it has throughout its 13-year history. The best has got even better - the only decision now is whether to stick FINAL SCORE with the title on its own or consider the strengths available through the entire suite.



- File Browser This familiar feature has been considerably upgraded to provide more powerful asset management options
- Colour control Match colours across files, histogram palette and shadow/highlight correction... all at 16-bit
- Raw support Make use of higher quality source material by working directly with raw data files

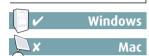
CorelDraw Essentials 2

GRAPHICS APPLICATION Can Essentials really capture, edit and publish your work from a single application?



CORELDRAW ESSENTIALS 2

Price £60 Manufacturer Corel **Tel** 01628 589800 Website www.corel.co.uk

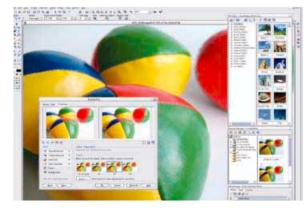




- CorelDraw Essentials 2 Graphics and page layout
- Corel Photobook Photo retouching and editing
- Corel PhotoAlbum Photo albums
- and organising Ouick Start Manager

here's been a rise in the number of budget applications aimed at digital photographers in the last few years. CorelDraw Essentials 2 is the latest, and upgrades the original, which was based on the popular CorelDraw package. The reduced version provides many of the options from its more fullyfeatured cousin, and has a few additional tricks up its sleeve, aiming to provide an all-in-one solution.

Essentials comes with Corel PhotoBook and PhotoAlbum. PhotoBook caters for any photographic



editing requirements you may need, but the heavily Wizard-based approach leads to some limitations in what can be achieved when compared with Photoshop Elements or Paint Shop Pro. However, PhotoAlbum provides additional options not found in these titles for the organisation and display of your work.

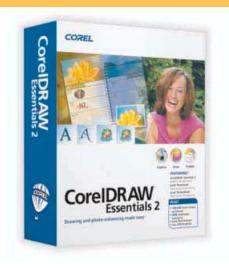
Fully featured

Similarly, Essentials itself is full of features that can't be found in such titles. With its leanings towards

> vector output and page layout the application provides tools for the creation of documents that can be easily created with your adjusted images.

Holding the suite of tools together is a useful Quick Start application that enables you to jump into related tools as well as offering access to templates, help files and tutorial videos at the click of a button.

With over 250 templates available, you can be sure to find something that will get you started as you plan your first print layouts



The interface is simple; you'll pick up the basics in no time. The hard copy documentation may seem initially a little thin, but it covers more than is necessary to master the basics, and comprehensive online help files and documentation will soon have you stretching both your own and the software abilities. There's also a CD with video tutorials, courtesy of Lynda.com, plus two CDs containing over 100,000 clip art images from Hemera.

As a photographic image editor, the suite is sometimes lacking, but this is more than made up with the vector and layout options. If you're looking for something that will allow you to do more with your images than just clean things up then Essentials 2 is certainly worth considering.

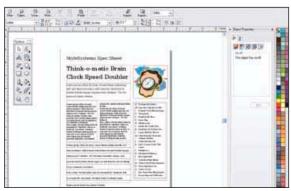
Ulead PhotoImpact XL

IMAGE EDITOR The new version of PhotoImpact comes with a little Xtra...

hotoImpact is a long-standing favourite among novice photographers, due to its ease of use, low price and range of tools. The new XL version is bundled with a raft of features making it more of a suite. It includes Photo Explorer 8 for asset management, GIF Animator 5 with its webanimation abilities, COOL 360

for stitching panoramic image sequences, and PhotoImpact Album for more advanced database asset organisation.

The key new features are mainly filter- and productionbased. Novice users will appreciate the ExpressFix tool that automates the colour balance and adjustment process. This is complemented by the Remove Colour Cast option.



The new ExpressFix tool lets you preview routine image changes



INFO

PHOTOIMPACT XL Price £60

Manufacturer Ulead Tel 01256 707769 Website www.ulead.co.uk

The High Dynamic Range feature is of particular interest. This combines several shots of a subject taken at varying exposure levels to extend the perceived tonal range.

There are also video tutorials, Hemera clip art, plug-ins from Alien Skin Eve Candy and a collection of GIF animations to enhance your work.

While PhotoImpact isn't for everyone, its new features make it a worthy contender for your

imageediting needs

FINAL SCORE

Wacom Graphire 3 Studio

GRAPHICS TABLET At last, an affordable professional graphics tablet

ost of us get by using a mouse with our image-editing software. It's not ideal, and the control is a bit brutal, but you get used to it. If you find a mouse satisfactory, don't try a graphics tablet... unless you can afford one. Once you've tasted its fine control, you won't want to go back to a mouse.

Wacom is the market leader in serious graphics tablets; the release of the Graphire 3 Studio A6 tablet for £99 offers the chance for most of us to get our hands on a graphics tablet that has up to 512 levels of pressure sensitivity. With that sort of control, you can draw accurately with a graphics tablet, and vary the thickness of pen strokes.



The Graphire 3 Studio is an A6 tablet bundled with software

INFO

GRAPHIRE 3 STUDIO

Price £100 Manufacturer Wacom Tel +49-(0)2151-36 14-0

Website www.wacom.com The Graphire 3 Studio comes with a dual-ended pen that has

a tip for drawing and a blunt point at the other end for erasing. There's also a programmable toggle switch on the side of the pen's shaft. A bundle of software is

thrown in, including Adobe Photoshop 2 for the Mac and PC, Pinnacle Studio LE, PenPalette LE and ACDSee photo database software.

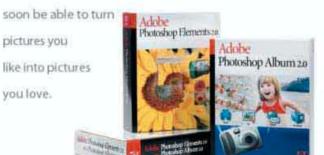
Digital photographers will find this a great value graphics tablet.





Trying to fix a digital picture is no honeymoon.

Even if it's a picture of someone you cherish. Here's how to get things back on track. Use Adobe* Photoshop* Album. It's perfect for those just starting out. Then, when you want to get a little more involved, use Adobe* Photoshop* Elements. Whether you're ready for commitment and want to buy the bundle or want to take things a little slower with just one, visit Jessops. John Lewis, PC World or Staples. Either way, you'll



JESSOPS John Lewis





For more information visit: www.adobe.co.uk/digital



Viewfinder

We want your letters! Email us at letters.dcm@futurenet.co.uk and we'll print the best

Interact

From our online forum

Our website forums offer a wide range of topics, advice and tips for newcomers and experienced photographers alike. This month, talk turned to the moon...

David Hilton: I have just tried to take image of the moon - a clear night, almost full moon and a new digital camera. The camera will not focus – all I get is a smudge on the LCD. Is there a secret to focusing? I've tried the camera on one and two second exposures, auto focus and manual, but still blurred the image in the LCD before taking the picture...

John Piper: Did you use a tripod? Essential for long exposures. If you have manual on your camera, I would imagine you would need to set focus to infinity if possible.

Paul Ward: I tried to take some of the moon with a 300mm lens on my Canon10D. I took loads to try out different effects, and longer exposures were more blurred than shorter ones, the best one was taken at 1/90 exposure at f 5.6 at 100 ISO.

David Hilton: I used the car window. Using Fuji \$5000 which has a good telephoto lens, think I now know where the problem was, needed manual focus, which was because its new, and I'm a novice, I did not know how to use it on manual focus turns out to be 2 button presses at same time.

Jason Canning Email member: The moon is a lot brighter than people think. I've taken some reasonable pics at f9.5 1/45sec, the only problem is the darn thing is so far away. Even with a 200mm lens and a 2x teleconverter I still only fill a small portion of the frame.

Now it's your turn!

To join this discussion and others like it, www.dcmag.co.uk/forum





STOP THAT MAN

I love your magazine and I am enjoying the Photographer of the Year competition competition immensely. I was chuffed at being joint 18th in the Portraits category given it was my first attempt. However, I must complain about the third place picture, 'Girl with chick'.

I'm sure the rules stated any picture could not have been submitted to any other competition, but I think you'll find it has been printed in another magazine's competition page. I understand that you rely on the honesty of the people submitting entries, and I think this is entirely unsporting of them. I know this is not your fault but I think the said entrant should be disqualified.

Ivan Barnsdale

DCM You're absolutely right, Ivan. We do rely on people's honesty and on our readers being sharp-eyed enough to spot entrants who flout the rules. We have disqualified the photographer from our Photographer of the Year competition and the prize will be shared between Paul Lomax and Tom Powell, who

Star letter Like father, like son

First, I'm really taken by the magazine. What I especially enjoy is the thorough focus on technique and the good advice available to budding photographers to which I'd now like to add. I am totally hooked on digital photography and one of its strengths, for me, is the freedom to take as many shots as I like without having to worry about processing costs. I can review shots as soon as I take them and then again when I get home on my PC.

This has helped me develop the practice of taking as many shots as I can, in order to increase the chance that one or two will come out looking good! I'll call it the 'shoot 'n' hope' technique! However, I'm learning that no amount of luck can replace careful thought and a little more time taken before pressing the shutter release. And until cameras come with auto-composure, I will have to work hard

I learned my lesson when I took my camera on holiday. Although I have plenty of CompactFlash cards and spare batteries, I was worried that I would run out of both of them. This made me much more cautious, forcing me to stop and think about exposure, camera settings (I won't tell you how many times I forget to reset the ISO) and one of the most crucial adjustments, where I stood!

I know there's nothing new in all this, and how often has it been said there is no substitute for having a good photo to start with when you get to image editing? What I am suggesting is there is a downside to one of the key strengths of digital photography. Being able to shoot hundreds of photos drains batteries and swallows memory; it leaves you having to trawl hundreds of pictures looking for the keepers and can make us lazy. And now I sound like my parents!

Martin Coleman

DCM There's no doubt that taking your time in setting up a photo, if possible, makes the biggest difference to the final quality of the image. Sure, software can help out, too, but the better the initial image, the better the final result is going to be.

STAR LETTER PRIZE

The Star Letter wins an HP Photosmart 935 digital camera, worth £399.99! Sporting a superb 5-megapixel resolution and 3x optical zoom, it comes complete with a 32MB memory card. Find out more about the Photosmart 935 at w



came joint fourth last month. You can see their pics here – apologies for not having the space to print them any larger.

BACK IN THE SADDLE

Just a note to say thanks for firing a lost passion. I used to be an avid photographer but, for personal reasons, I sold all my cameras and photography equipment, and dismantled my darkroom around 13 years ago.

Well, a few months back I happened upon a copy of Digital Camera Magazine and was completely absorbed by its contents. I have since been buying it regularly and, after reading your

review of the Olympus 5050, I bought one. I have not looked back since. Talk about a kid with a new toy: what a fantastic camera it is for its size, I love it and I love getting out and snapping the world around me again. Once again, thanks DCM for a great magazine.

Allen Kelly

DCM The wonderful thing about digital photography is that it's bringing thousands upon thousands of people, like Allen, back to a hobby they love, fuelled by complete control over the final image. It's a revolution - and it's only going to get bigger!





I started taking digital photographs in 1999, when I bought a Kodak DC210 Zoom. I have always been keen on taking photographs (we're talking decades here) and when the expenses mounted I started to look for a more economical way to produce pictures. On top of that, I've always enjoyed doing my own processing.

After moving from Staffordshire to Cambridgeshire I never had the room to pursue the darkroom side of things but I still hankered after producing my own photographs without a trip to Boots! I began to realise that there was definitely a future for me with digital photography

My best moment was when my wife was putting some washing out I noticed some wasps attacking an apple growing on our tree. I rushed indoors, fetched my camera and just took a few shots.

I never really gave it much thought, just grabbed half a dozen frames. Three days later, I realised how lucky I'd been. Just away from the wasps there was a fly, stealing a tiny morsel of apple – most audacious! I hadn't noticed it when I took the shots. I guess you need a little bit of luck sometimes.

This month (November) nature tells me I'm 50 years old! Trouble is my mind says I'm still 21 and I walk for miles with a bag of equipment, which would be better suited being carried by a younger man! I've been married 30 years and we have three children and one grandson. I was born on the Isle of Wight and I'm reaching the point in my life where I'd like to be back by the sea again, but not on an Island. I just love taking seascapes and photographs of boats, but there's not too much of that around here in Cambridgeshire. I have a passion for aviation and I just can't stop taking pictures of aircraft.

I've got two favourite tips. The first is make it simple. The second is a bit more involved. Take one photograph of a subject and then allow yourself two minutes to think how you could improve it. Strange thing is, 9 times out of 10 you always will. That only holds true if there's sufficient time for a second qo.

I have a Nikon D100 and a couple of Nikon film SLRs, just to remind myself of what life used to be like. I travelled a lot with my job and I used to resent the fact I couldn't take all my equipment with me so I bought a little Olympus C5050. What a great travelling companion that is. I'm amazed at the quality I'm able to achieve compared to what is getting 15 years ago with traditional methods.







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02 Photographed by: Jason Canning Location: Salzburg Zoo, Austria Camera used: Minolta DiMAGE 7Hi

03 Photographed by: Adam Nolan Location: North Cornwall, **England** Camera used: Canon EOS 300D





vermiss a snot

3 fps maximum resolution* shooting means you never will.

There are plenty of ultra-compact 5 megapixel digital cameras available but the Finecam S5R leaves the rest staring at its tyre tracks with its ability to shoot in full resolution continuously at 3 frames per

e: a state of the art 1.6" SunBrite-TFT" LCD screen means you can review your images

technologies provides extended usage, there is a high performance

movie mode with sound, a high quality 3x optical zoom lens (with variable 12x digital zoom) plus a host of other high end features.

The camera is supplied complete with a 16MB SD card, lithium-ion

battery pack, battery charger, USB cable,

drivers and imaging software.



KYOCERa

www.finecam.co.uk

Kyocera YASHICA (UK) Ltd, Kyocera House, 111 Loverock Road, Reading. RG30 1DZ Telephone 0118-933 7000 Fax 0118-958 7950 Kyocera Corporation (Head Office): 6 Takeda Tobadono-cho, Fushimi-ku, Kyoto, 612-8501 Japan

The new Kyocera Finecam S5R features revolutionary RTUNE image data processing technology which allows you to shoot high quality 5 megapixel pictures at up to 3 frames per second.

With ultra-fast 'lag-free shutter' operation and this highperformance continuous drive mode-you won't miss a shot, however fast it happens.





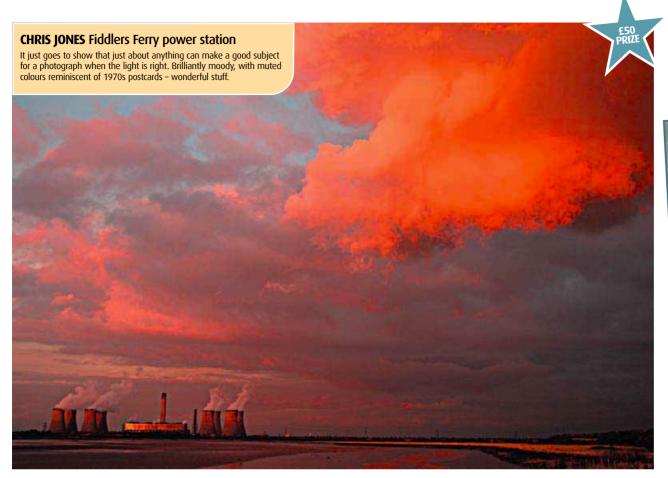
Photographer Photosylvith of the Year

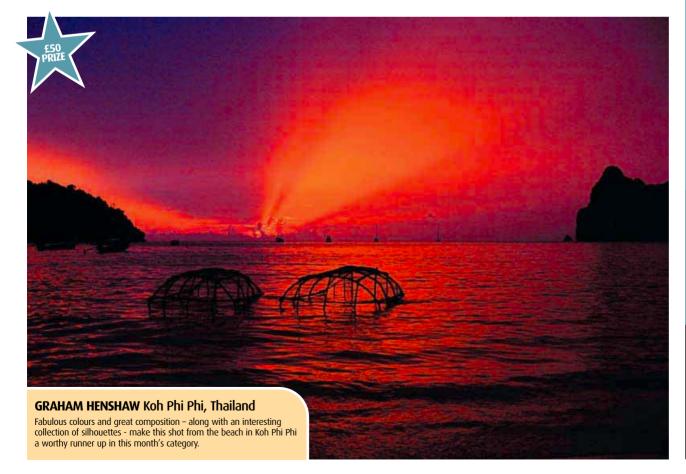


The Sunsets section of our competition drew an amazing response with hundreds of high-quality entries. Here are the winners...









PhotographerJESSOPS of the **Year**

Some of the early entries from last month's Black and White stage



DCM is giving you the opportunity to become the Digital Camera Magazine Photographer of the Year. Each issue features a different subject for you to go out and photograph. There are great prizes for the absolutely superb prize for the Photographer of the overall winner gets a staggering £1,000 worth of Jessops vouchers to spend as they see fit!

To qualify for entry for the grand prize, you need to enter a minimum of four out of the six stages, entry will be awarded a mark out of 100. (Send up to three – we'll count your best score.) The scores from all six individual competitions will be added together, and averaged, giving the final positions. We'll be printing the full table at www.dcmag.co.uk every month.

THIS MONTH'S COMPETITION: MACRO

We want your macro shots! Close ups of anything and everything, inside or out, living or inanimate! The winners for this fourth round will be announced before 2nd Jan 2004.

You may enter up to three photos each month but only the best one will count towards your total. A cash alternative to the prizes is not available. We reserve the right to substitute prizes of equal or greater value. The editor's decision is final. No correspondence will be entered into. Do not send CDs, memory cards, printed materials, etc – this is an email-only competition and we cannot be held liable for the loss of any materials. By entering the competition, you agree to grant us an exclusive three-month license to publish your photos in any manner we see fit, in any medium, in conjunction with the competition. After three months, this changes to a non-exclusive license on the same terms. All entries to the competition must be previously unpublished

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PRATION

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Take one favourite picture and transport it back in time to create this stunning calendar.

*All tutorial files are included on the cover disc

NEW TO PHOTO EDITING? OUR GUIDES, TUTORIALS AND REFERENCE PAGES HELP YOU **CET IT RIGHT!**

SEND US YOUR PICS AND THIS CAMERA SEE PAGE 60 FOR DETAILS

PLUS ALL THIS! 20 Photoshop filter sins and fixes Richard Lynch's Elements tutorials Create perfect panoramas

Paint Shop Pro 8 - insider tips 10 brand new plug-ins reviewed

ISSUE SIX DECEMBER 2003 EASO

FROM THE MAKERS OF DIGITAL CAMERA MAGAZINE AND DIGITAL CAMERA SHOPPER



POP ART PORTRAIT CREATE AN IMAGE IN WARHOL'S STYLE SEE PAGE 56



















Section highlights...

CREATIVE PROJECT

POP ART PORTRAITS

Digital photo artist, **Barry Jackson**, uses basic filters and blends to create a Warhol-esque portrait

FAGE 56

DIGITAL TECHNIQUES

ADDING ATMOSPHERE

Derek Lea alters the feeling of an image by adding wisps of mist with layers and the Alpha channel

PAGE **62**

LIGHTING EFFECTS

CREATING RAINBOWS

In part four of our series, **Derek Lea** creates a rainbow in the background of an existing image

PAGE 64

PHOTOSHOP SKILLS

ELIMINATING UNWANTED ELEMENTS

Get rid of unwanted people and objects from your image using the Clone and Selection tools

PAGE 66

YOUR PICTURES

SEND US YOUR IMAGES

Adam Evans and **Tom Ang** give their opinion on reader photos that have been enhanced in Photoshop

PAGE 68

Photoshop

Inspirational projects and expert digital darkroom advice

Tutorials you can trust!



Our aim is to bring you creative ideas, expert tips and quick fixes you can use in your own work.

Authoritative A leading professional in his/her field writes every tutorial. Value-added We try to include

image files, and full or trial software so you can try the tutorial for yourself, delivering a complete package.

Clear Our large page size means we can add extra elements, explanations and detail to each tutorial.

MORE EXPERT PHOTOSHOP TECHNIQUES!

Check out our sister title for even more expert Photoshop, Elements and Paint Shop Pro solutions. In issue 6 (on sale 13th November) we show you how to combine images into panoramas and create a stunning Art Nouveau print using only simple Photoshop techniques.



Contact our editorial team



If you have a comment, suggestion, idea or submission you would like to make, please email us at editor.dcm@futurenet.co.uk Visit our website at www.dcmag.co.uk

Create a Warhol-style Pop Art portrait

Digital photo artist, Barry Jackson, uses basic Photoshop filters and blend modes to create a simple but stunning Pop Art portrait

KÉY DETAILS

ON OUR DISC ■ IMAGE FILES

All the elements you need are on your cover CD/DVD in the 'Pop Art' folder All images on discs for non-commercial use only

SKILL LEVEL

TIME TO COMPLETE HOURS

ver the course of his extraordinary career, Andy Warhol, along with other influential Pop Art pioneers, transformed the face of modern art. Warhol eroded the distinctions between art and popular culture by using mass-production methods, like silkscreen printing. He created stunning portraits of popular film stars, such as Marilyn Monroe and Elizabeth Taylor, and his images are still recognised today as some of the most iconic of the 20th century.

Simple techniques

In this tutorial, we'll be explaining how to use simple but highly effective Photoshop techniques to turn a photograph into a very individual Pop Art portrait. Due to the simplistic style of Warhol's silkscreen images, the

tutorial doesn't require us to start with an image that's been taken by the latest all-singing all-dancing 6-megapixel digital SLR. In fact, the image was shot with a 3.2-megapixel Canon Ixus, set to automatic mode, with red-eye reduction flash used to lighten the face and increase the contrast of the image.

Photoshop's tools

After opening our picture in Photoshop, we're going to create our Pop Art portrait using basic Photoshop filters, blend modes and simple colour adjustments. The files needed to reproduce the image are included on this month's coverdisc, but why not use your own photographs to create fantastic, Pop Art portraits of your friends and family?

TOOL SCHOOL

MAGIC WAND TOOL

FIND IT on the Tool bar beneath the Move tool and next to the Lasso tools. USE IT to select areas of the same brightness.

MASTER IT to adjust the tolerance to increase and decrease the range of the selection.





THE PORTRAIT Our simple portrait was taken with a Canon Ixus 3.2-megapixel camera. The shot was

taken in auto mode, with red-eye reduction flash selected to give greater contrast to the image.



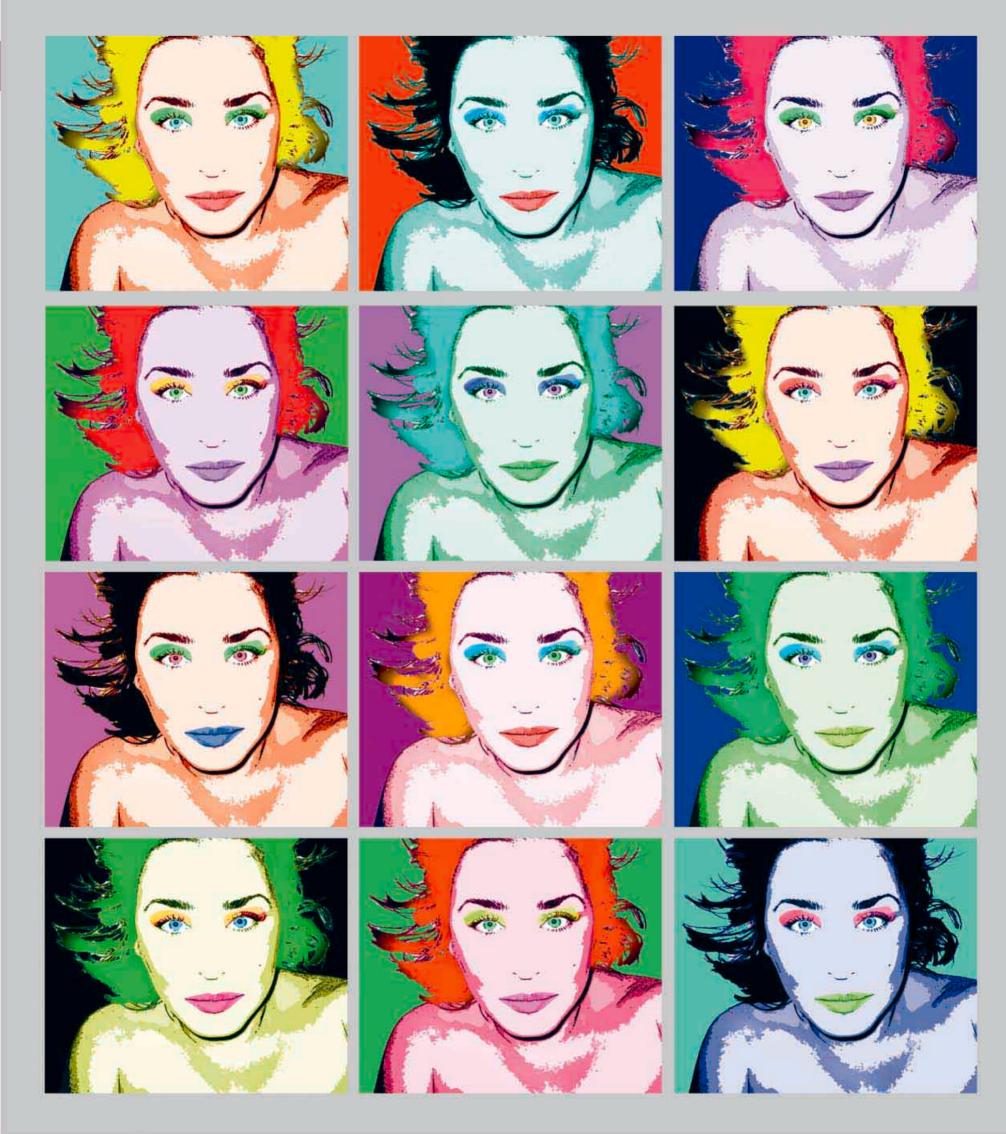


Simple Photoshop filters were added to our image and then blended together to give us a hand-drawn, cartoon-like effect – it's a style that's often used by Pop artists.



SILKSCREEN EFFECT Bright colours were then roughly painted over

the eyes, lips and hair, along with a strong background to give us the silkscreen-effect, as used by the likes of Andy Warhol.



PHOTOSHOP | CREATIVE PROJECT

TOP TIP Snapshots are not saved with the image, so remember that closing the image removes them all

STAGE 1



01

SIMPLIFYING THE IMAGE

First of all we will add a couple of basic Photoshop filters to our image to create a flattened, 2D effect to the picture.



REMOVE THE BACKGROUND

Open the portrait image from the coverdisc. Duplicate it and select the Magic Wand tool

(W) from the Tool palette. Set tolerance to 40 and click on the white background to make a selection, making sure the background shows through the hair before you hit the delete key to remove the background.



TIDY UP

APPLY THE STAMP FILTER

02 Use the Eraser tool to remove the dark area of background in the top-right of the image, and any small areas that have been missed by the Magic Wand tool. Don't worry about erasing any of the hair adjoining the dark section of background – we'll rectify this in the next stage.

06 IN FOCUS STAMP FILTER

Create a line drawing

Make another copy of the Original layer, place it

Light/dark balance, 11; and Smoothness, 1. Click

above the Cutout layer on the Layers palette

and rename it 'Stamp'. Select Filter #Sketch #

Stamp and, in the dialogue box, choose

OK to apply the filter to the layer.



COPY AND PASTE

03 Use the rectangular Marquee tool to select a section of hair on the left-hand side of the head. Right-click the layer via Copy; go to Edit #Transform ⇒Flip Horizontal to flip the selection; then use the Free Transform tool to rotate and position the selection. Layer-Merge down (Ctrl+E) to group it with the background.

EXPLAINED

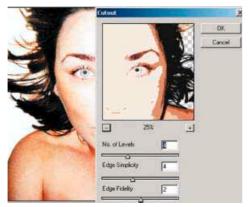
TRANSPARENCY LOCK

The Transparency Lock can be found at the top of Layers palette. It enables you to paint over a layer without affecting the transparent areas of the layer particularly useful to use on selective areas that have been copied to separate layers.



NEW BACKGROUND LAYER

Create a new background layer (Ctrl + N) at 2,048 x 1,536 pixels, with a resolution of 300 pixels per inch and a white background. Use the Move tool to drop the portrait layer onto the new background. Choose Layer Properties and name the layer 'Original'.



THE CUTOUT FILTER Make a copy of the Original layer by dragging it onto the New Layer icon at the bottom of the Layers palette. Rename it 'Cutout'. Select Filter * Artistic *Cutout and, in the dialogue box, enter 4 in No. of Levels; 4 in Edge Simplicity, 4; and 2 in Edge Fidelity.

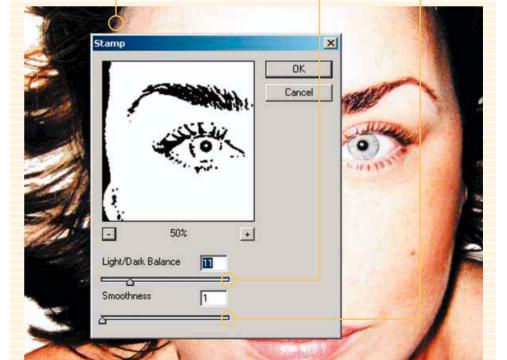


LIGHT/DARK BALANCE

Move this slider to adjust the balance between the light and dark areas of the Stamp-filtered image.

SMOOTHNESS

Move this slider to adjust the outline smoothness of the Stamped image.



EXPERT TIP



BARRY JACKSON'S PHOTOSHOP TIPS

FILLS

Fills can also be applied by clicking on the Edit menu choosing Fill and making the required selection in the pop-up dialogue box.

STAGE 2

BLEND AND PAINT

We will now blend the layers together and paint over selected areas of our image to give a silkscreen effect.



BLEND THE LAYERS

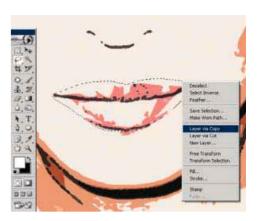
07 From the drop-down Blending Modes menu at the top of the Layers palette, choose Multiply and set Layer Opacity to 60%. Blending the two layers together in this way will give more definition to the features of our portrait.



PAINT THE EYES

80

With the Cutout layer selected, use a hardedged paintbrush (B) to roughly paint over the whites of the eyes. Don't worry about being too precise – the silkscreen print effect we're trying to achieve is a very simple image with flat blocks of colour.



ADD SOME LIPSTICK

09 Use the Lasso tool (L) to draw a selection around the lips, right-click and choose Layer via Copy from the drop-down menu. Name the layer 'Lipstick', click on the Lock button at the top of the Layers palette and paint it bright red with opacity set at 40%.



EXPERT TIP



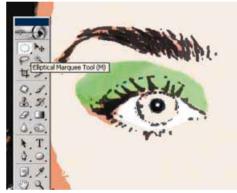
PHOTOSHOP FILTERS

Photoshop contains many standard filters. They can produce some really stunning results when they're blended with other filters.



EYE SHADOW

10 Return to the Cutout layer and use the Lasso tool to make rough selections above each eye. Hold down the Shift button to add to the selection. Go to Layer via Copy, rename the layer 'Eye Shadow', then Lock Transparency and Paint. In our example, we've used bright green with opacity set at 40%.



THE EYES

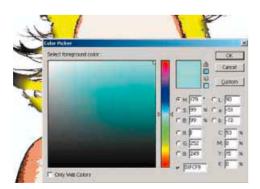
Return to the Cutout layer and follow the same procedure as in steps 09 and 10, except this time, use the Elliptical Marquee tool (M) to create the selection. Hold down the Alt key, left-click and drag the mouse from the centre of the eye. Paint it bright blue or green, with opacity set to 40%.



THE HAIR COLOUR 12 Now we're going to turn our model's hair blonde. Return to the Cutout layer and use the Magic Wand tool to select the hair, go to Layer via Copy, rename the layer 'Hair'. Place it above the Stamp layer, go to Lock Transparency and paint it bright yellow, with opacity set to 100%.



Selections can be made using several Photoshop tools, such as the Magic Wand, Lasso, Pen, Colour Range and Marquee.



Select the Background layer, click on the Foreground Colour box and choose a bright blue from the Colour palette. Select the Paint Bucket tool (G) from the Tool bar (this can be found in the same group as the Gradient tool) and click on the white background in order to fill it with blue.

FILL THE BACKGROUND



IMAGE RESULTS 14 We now have our finished Warhol-style silkscreen image. Either leave it at this point or follow the final steps to make the full, composite image. From this point on, there is an infinite number of colour combinations - why not experiment with your own colour preferences?



NEW CANVAS Pick a mid-grey background colour, then create a new canvas that's 266mm wide x 300mm high. This is the specific size of our tutorial, but you can specify your own, final image size, depending on your printer's output.

PHOTOSHOP | CREATIVE PROJECT

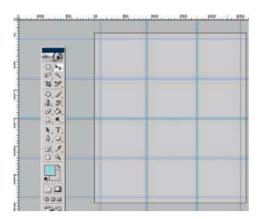
TOP TIP When using the Magic Wand tool to make a selection, hold down the Shift key while left-clicking the mouse to add to the selection or hold down the Alt key to subtract from the selection

STAGE 3



CREATE THE COMPOSITE IMAGE

We will now create a composite image containing 12 different versions of our Warholstyle portrait.



RULERS AND GUIDES

16

In the View menu, turn on the rulers (Ctrl+R) and Snap #Snap to #Guides (Shft+Ctrl+;). Drag

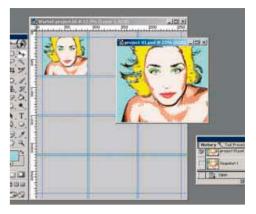
the guides from the rulers at the top and left of the screen and position it to make a grid over the canvas. This image is made up of 12, separate versions of our Warhol-style portrait, each is 80mm wide x 67.5mm high.



CROP TO FIT

click on the selection and click on Crop.

Return to the portrait and select the Crop tool (C), set the size to 80mm wide x 67.5mm high and the resolution to 300 pixels per inch. Hold down the left mouse button while dragging the tool across the image. When you're happy with the selected area, right-



FLATTEN THE IMAGE

18 Create a snapshot of the image by clicking on the Camera icon at the bottom of the History palette. Flatten the image using Layers #Flatten image, then save it as 'Portrait 01'. Use the Move tool to drag the image onto a new canvas and, if you position the image in the top-left box, it will automatically snap to the guides.

EXPERT TIP



BARRY JACKSON'S PHOTOSHOP TIPS

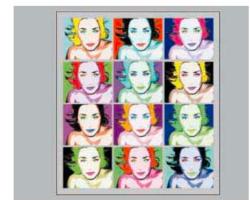
BLEND MODES

Selected in the Layers or Options palette these can be used with any brush-editing tool or layer to affect another layer.



CREATE A NEW COLOUR SCHEME Return to the snapshot of the Original portrait

image, and go to Image *Adjustments *Hue/ Saturation (Ctrl+U). Move the hue slider to adjust the colours of the component layers in the portrait. When you're happy, flatten and drag it onto the new canvas, as in step 18.



SNAPSHOT FEATURE

EXPLAINED

The Snapshot feature enables you to make a temporary copy of your image at any stage of the editing process. You can then return to this at any time by clicking on the snapshot image at the top of the History palette.

COMPLETE THE COMPOSITE IMAGE 20

Repeat step 19, creating a new, individual colour scheme for each of the 12 boxes. When

you're happy with the results, go to Layer #Flatten image and remove the guides (View *Clear guides). We now have our completed Warhol-style Pop Art image.

21 IN FOCUS FESTIVE TOUCH

Create an original Christmas card

SPEECH BUBBLE

Add a simple, cartoon-style speech bubble by using the Elliptical Marquee tool to create the shapes surrounded by a 4-pixel black stroke, and then use the Text tool to write your message.

This Christmas Pop Art image was created by placing a picture of a Santa hat on a separate layer on top to the Original portrait image before the filter and colour changes were made.







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Creating misty effects

By making use of Photoshop's alpha channel and layer functions, Derek Lea demonstrates how to alter the atmosphere of your scenes with eerie mist

ATMOSPHERE **KEY DETAILS**

ON OUR DISC ■ IMAGE FILES

All the elements you need are on your cover CD/DVD in the 'Creating misty effects' folder. All images on discs for non-commercial use only

SKILL LEVEL

TIME TO COMPLETE

hanging the atmosphere surrounding the subject in an image can alter the feeling that your image conjures up. The atmosphere in our original image of the horse (above, left), evokes a feeling of the weather being warm, bright and pleasant: it's a beautiful day and all is well.

Mist opportunity

Adding an atmospheric effect, like wisps of mist, can change the feeling of the image entirely. The feeling of the second image of our horse (above, right) has changed: it feels like the weather is closing in - the mist is rolling in, things are taking a turn for the worse and the image has a more ominous feeling.

Mist can also change the feeling of altitude in the image. The original shot of our horse was taken on top of a rocky hill, but adding the mist has created a feeling that the hill is much higher, where the horse is above the cloud level and the wisps of mist are blowing past.

Play misty for me

Creating the mist isn't difficult, and like many effects offered in third-party programs, adding it can be done in Photoshop, if you have an adequate understanding of alpha channels and layers. While many users will immediately head for the Brush tool to paint in some soft, misty areas, a much faster, more realistic result can

be achieved by using an existing shot of cloud to define the areas of mist.

On cloud nine

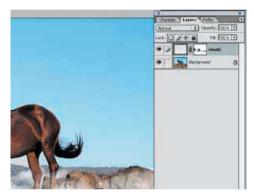
Clouds are areas where mist gathers in the atmosphere, and by converting the cloud image to greyscale and then drastically altering the contrast, it provides an excellent basis for selections when it's imported into an alpha channel. The rest is simple, using multiple layers of filled selections. Moving them around, distorting and blurring them helps to create the overlapping wisps of mist. And the use of layer masks helps to control areas that are stronger than others.



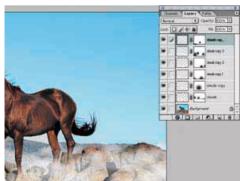
MAKING THE MIST



CREATE A CHANNEL Open your picture of clouds, and use the Lasso tool to draw a rough selection around them. Make sure that it encompasses all the white areas. Choose Edit *Copy from the menu and open your horse image. Create a new channel by clicking on Create New Channel in the Channels palette.



MERGE THE LAYERS Link the cloud layers in the Layers palette and choose Merge Linked from the Layers palette menu. Click on the Add Laver Mask button to add a mask. Select the Brush tool from the toolbox and specify a black foreground colour. Use a large, soft brush tip and a 50% opacity setting to paint out areas of cloud on the mask.



FLIP THE LAYER Duplicate this layer and choose Edit #Transform #Flip Horizontal. Alter the size and position of this layer. Fill the mask with white and mask the desired areas on this layer mask with a large, soft brush. Reduce the opacity. Use this method to create two more mist layers.

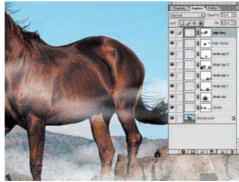
Build up layers of white inside cloud-shaped selections to create the mist within the image



MAKE A SELECTION 02 the visibility of the composite channel in the Channels palette. Use the Move tool to position the contents and deselect (command-d). Command-click the cloud's Channel icon to generate a selection from it. In the Layers palette, click on Create a New Layer.



DUPLICATE THE LAYER 05 Reduce the opacity of the layer to 74%. Duplicate the layer and drag it far to the right and lower down using the Move tool (v). Choose Filter * Blur #Gaussian Blur from the menu and specify a radius of 8 pixels to blur the clouds. Select the layer mask and fill it with the white background colour (command-delete).



ADD HIGHER MIST Create a selection from the alpha channel and fill it with white. Reduce the opacity and use Free Transform to stretch it horizontally. Move it using the Move tool and add a layer mask. Use the Brush tool to edit the layer mask. Duplicate the layer and move it up.







CREATE ANOTHER DUPLICATE 06 Increase opacity to 82% and use a large, soft brush to paint over the central area of the layer mask with black. Duplicate the laver and use the Free Transform tool to increase the size of the layer contents; and use the Move tool to move it to the left and lower down. Use a large soft brush to mask out unwanted areas.



ONE FINAL DUPLICATE Make a duplicate of the current layer and increase the opacity. Move it up and to the left. Use Gaussian blur to soften the clouds. In the layer mask, use a large, soft brush with a black foreground colour to mask areas that cover too much of the horse's face.





DEREK LEA'S BRUSH ADVICE

BRUSH TIP SHAPE

When you are using the Brush tool, have a look in the Brushes palette by clicking the toggle button in the Tool Options bar. The first option at the left enables you to adjust your brush tip quickly and effectively. Increase the diameter and reduce the hardness to zero for a large, soft brush. Reduce the spacing to one for a smooth stroke.



EXPERT TIP



DEREK LEA'S EXPERT ADVICE

LOCKING

Get into the habit of locking your layer attributes – it can help you preserve the content of your layers and avoid mistakes. There are three different lock options for transparency, image pixels and position. There is also a lock-all option that lets you lock all of the attributes.

COLOURS

By default, foreground colour is set to black, and background colour is set to white. To change a colour, click on its swatch in the toolbox. The colour picker will open where you can select any colour. To reset the swatches to their defaults, either click on the small default colour swatch icons to the lower left of the regular swatches or type [d].



LIGHTING EFFECTS PART 4





Beautiful rainbows

Never worry about being in the right place at the right time again: we show you how to create a rainbow in an existing image

NEXT MONTH GRAIN EFFECTS How to simulate traditional film grain effects

e all know that moment when the clouds begin to clear after the rain, the sun peeks out for a moment and a rainbow appears before us. After the initial excitement fades, frustration sets in, and you mutter to yourself, "I wish I'd brought my camera with me...'

Another rainbow has slipped away, but worry not,

because you can create a rainbow of any shape in any digital image you like – all that you need is Photoshop and a little bit of know-how.

Photoshop magic

By combining the Pen tool with layers, layer sets, the Free Transform tool and Gaussian blur, you can recreate

that magic moment any time. Ideally, a rainbow like this is suited best to an image with a lot of sky, and works very well if the sky suggests rain or overcast conditions. That is assuming that realism is what you're after, however, feel free to take these techniques and create any rainbow effect of your own that you desire, realistic or not...

CREATING RAINBOWS

Add a stunning rainbow to any of your landscape scenes in four easy steps



ADD THE COLOURS Use the Pen tool to draw a closed path for the first colour. Generate a selection from the path and fill it with a violet from the picker. Deselect and draw a path for the second colour. Generate a selection from the path and fill it with indigo. Follow this process for each colour.



CREATE DUPLICATE LAYERS Disable the Lock image pixels and choose #Image #Blur #Gaussian Blur. Enter a radius of 40, click OK, reduce opacity to 20% and dup the layer. Change layer opacity to 27% and the mode to overlay. Duplicate this layer, change the opacity to 100% and the blending mode to colour.



ADJUST THE COLOUR Command-click the layer icon in the Layers palette, create a new Selective Colour adjustment layer and adjust the levels of the colour components of the rainbow so that it looks more natural. Create a layer set and add all of the rainbow layers to it.



MASK AND TRANSFORM Add a layer mask to the set and use the Gradient tool with a black foreground colour, and a set the foreground to transparent, in order to soften where the rainbow meets the horizon. Select the layer set and choose Edit #Free Transform from the menu to skew the rainbow.

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PENTAX

Optio 550 5mp 5x optical zoom



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OLYMPUS

C-4000 Zoom 4MP



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Kodak CX6200 2MP



Manufacturer#-CX6200 QuickFind: 54493

DIGITAL CAMERA

DIGITAL

James Bond Zippo Style Pocket Camera

- •Web Cam
- Video
- Disc Drive

Manufacturer N-JB1-002 QuickFind: 52163

Digital Cameras

Quickfind	Description	MEVAT	52844	Olympus MJU400 Digital Camera 4.0 Mp 3x Zoom	£276.64
52851	Pentax Optio 555 5mp 5x optical zoom Digital Camera	£409.00	51451	Umax Astrapix 550 Cmos 2.1Mp	
52857	Pentax Optio 450 Amp 5x optical zoom Digital Carners	£330.00		finterpolated to 3.1Mp) With Built in Mp3 Player	£Ac.go
52853	Pentax Optio S4 Amp 3x optical zoom Digital Camera	£295.00	36149	Mustek Gsmart Mini 2 2.1 Mega Pixel Digital Camera	C36.61
54494	Kodak LS633 3mp 3x zoom Digital Camera	£265.67	52548	Genius G-shot D2st 2.tmp ax Zoom Digital Camera	£63.11
51551	Kodak CX6236 Digital Camera 2mp 3x 200m	6121.62	52549	Genius G-shot P3t3 3.3mp 4x Zoom Digital Camera	Cys.ftg
51552	Kodak DX6340 Digital Camera 3.1mp 4x zoom	£204.99	57572	Beng Dc2410 digital Camera 3 tropisel Ccd 1.6 TFT	£114.54
52969	Fuji A205S 2mp CCD 3x Zoom Digital Camera	£140.01	52497	Digital Dream L'espion Mini Digital Camera/video/web cam	E17.61
52970	Fuji S5000 3 tMP t0X Optical Zoom Digital Camera	6324-14	52164	Digital Dream Quantum 3.2 4 Function 6.6mp [Interpolated]	£117.49
51693	Fuji Azto Digital Camera 3.2mp 3x zoom XO Cant	6174-71	52457	Canon Powershot Ado 2MP CCD 3x Zoom Digital Camera	£155.01
52644	Olympus MJU 300 3.2mp Digital Carnera	£232.86	51701	Nikon 2100 3x zoom 2mp Digital Camera	Espil.63

LEXMARK

Lexmark P707



Free Paper inc.

Manufacturer#:80D1319

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Canon

Bubblejet 1250



■ USB



Manufecturer#-8550A011AA

Deskjet 3550 ■ A4 ■ Photo Quality

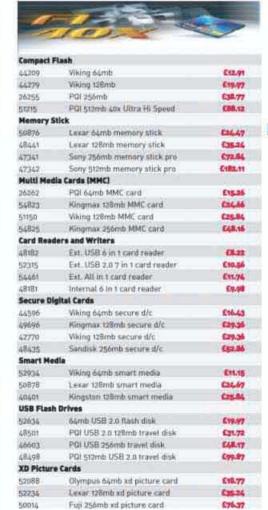
Manufacturer#; C8991A#303

18 QuickFind: 50043

Printers & Consumables

Quicklind	Description	incVAT	51534	Epson Stylus CBc Photo Edition - Col USE 5760dpi	£101.07
48658	Epson Stylus C44UX 2880 DFI A4 4 Colour USB	E44.17	49381	Lexmark Z601 Inkjet Printer - 2400x1200 Dpi USB UX	£30.39
51533	Epson Stylus C64 Inkjet - Cal USB 5760dpi	669.20	50554	Lexmark Z605 Inkjet Printer - 4800x1200 Dpi Usb	£39.53
39581	Inkrite Stylus Photo C42, C44 Colour	64,99	13874	Inkrite IRSDG210 Seriously Dry Glass 210g 15 Sheets	63.02
39582	Inkrite IREB036 Epson C42, C44 Black	C).88	32345	Inkrite replacement Stylus Photo 700 EX Colour	63.48
1232	Epson Paper Photo Quality Glossy Paper A4	66.39	32368	Inkrite Stylus Colour 1298 1280 1290 photo 900	£4.62
32353	Inkrite replacement cartridge for Epson Stylus		50660	Xinia Premium Compatible Toner For HP Laserjet 4000	
	440 460 640 660 740 760 860 1160 Colour	£3.18		Series C4127x	£50.90
32548	Inkrite IRCCorr BJC 50 70 80 85 3-Pack Colour	CR.44	50681	Xinia Compatible Toner For Brother HI-1030 Series	£35.80
32351	Inkrite replacement for Stylus 1200 Photo Colour	C3.92	33878	Inkrite IRSDP254 Dry Photocard 254g to sheets	C3.83
33879	Inkrite IRSDS150 Seriously Dry Satin 150g 20 Sheets	C4-87	33879	Inkrite IRSDSt50 Dry Satin 150g 20 Sheets	£4-67

Memory



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PHOTOSHOP | CLONE AND SELECTION TOOLS



BEFORE There are lots of distracting objects in this shot, including a coach and driver, signs and a lamppost protruding from the bride's head

AFTER Nothing to suggest that the objects were ever there. We've removed the driver, made up part of the road and, using a combination of the Clone Stamp and selection tools, got rid of the road signs



Clean up your photos

Remove passers-by, posts and distracting objects from your photos in a jiffy, says Rob Carney, using Photoshop's tools

REMOVING OBJECTS **KEY DETAILS**

ON OUR DISC **■ IMAGE FILES**

All the elements you need are on your cover CD/DVD in the 'Eliminating unwanted elements' folder. All images on discs for non-commercial use only

SKILL LEVEL

TIME TO COMPLETE

t happens to the best of us: someone walks behind the happy couple at the moment you take a shot at a wedding; an unsightly lamppost or sign ruins a shot; distracting objects spoil your favourite picture, and so on.

Removing unwanted people, posts and other objects from your digital shots can be a time-consuming process, but it's all about choosing the right tools for the right job. You may have to make up what's suppose to be behind an object, which can sometimes be a bit tricky, but there's usually enough reference material in an image to fake the scene.

In Photoshop 7, the Healing and Patch tools were introduced, but these tools are best used for removing blemishes. Often you don't need to preserve the background shadows and highlights when you're

removing unwanted objects, so it's best to use some of Photoshop's other tools.

Secret of success

The secret to quickly removing unwanted objects in Photoshop focuses on the Clone Stamp tool – it simply clones from a chosen area. The Quick Mask can be also be invaluable, because you can directly copy areas and drag them over the thing that you want to remove this can prove very effective if you make sure that you blend it carefully. There are all manner of other tricks that you can employ to remove unwanted elements, such as using layers, colour and brightness, the Free Transform tool, and the Copy and Paste options.

The walkthrough on the opposite page demonstrates how to improve an amateur wedding shot. With a bit of

cloning and cropping, the distracting objects have been removed from the image, and we can concentrate on the bride and groom.

IN DETAIL TOOLSCHOOL THE CLONE STAMP

The Clone Stamp tool is perfect for quickly removing unwanted objects. By Alt-clicking on a source and then painting in the normal way, you can easily remove offending objects. You can use the Clone Stamp with Photoshop brushes at varying opacities.

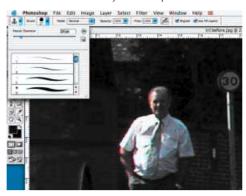


CLEAR THE CLUTTER



ASSESS THE IMAGE Begin by assessing the image: what do you want to get rid of and in what order? How are you going to do it? What tools are you going to use? Often a little planning at this stage will save a lot of time in the long run.

Lots of distracting objects are getting in the way of the main subject of this picture



CLONE IT The secret to using the Clone Stamp tool is to keep sampling from different places in the image. If you make sweeping movements, you'll end up with backgrounds that look repetitive and fake, so remember to change brushes every so often.



THE DRIVER Let's begin to remove the driver. Take different sample points (Alt+click) from around the grass and road, and begin to clone out his legs. Don't worry about the road markings at this point - we'll put them back in a bit.



EXPERT TIP



ROB CARNEY'S LAYER TIPS

USE ALL LAYERS

When using the Clone Stamp tool, if you're working across many layers make sure the Use all Layers box is checked in the Tool Options bar. This not only enables you to clone parts from other layers, but also makes it easy to retrace your steps – cloning from an image onto a new blank laver can make mistakes extremely easy to rectify! You can use the History palette, but when you're taking many sample points and cloning in short bursts this proves impractical.



WALL OF WONDER To get to the wall, choose the Polygon Selection Lasso from the main toolbox and cut out a section of it, as shown. Copy and paste this as many times as you need, in order to cover the driver's body. It may look a bit slap-dash, but we can sort that in a minute.



BLENDING 05 Go back to the Clone Stamp tool and choose opacity of 50 to 60 in the Tool Options bar. Begin blending the joins between the wall elements that you copied and pasted in step 04. Adjust the opacity and continue to clone until you've the desired effect.



HEAD AND POSTS Remove the rest of the driver and the sign by cloning from the foliage. Enter Quick Mask mode (0) and select the triangular sign using a hardedged brush. Move the selection to the right and use the Move tool to move a new piece of foliage over the sign.



THE QUICK MASK By hitting the Q key, all of Photoshop's brushes are available to use as selection tools. This makes it a lot easier to select complex objects, especially if you have a Wacom tablet or similar (see our review this issue). You can also use Photoshop's various erasers and filters on Ouick Mask selections, making it a very versatile tool.

EXPLAINED

ROB CARNEY'S QUICK MASK TIPS



ROAD MARKINGS To make the background more realistic, let's add some road markings. Zoom in, select a single line of paint, copy and paste it and use the Free Transform tool. Adjust the brightness by selecting the new layer and go to Image *Adjustments *Brightness and Contrast.



OTHER SIGNS The lamppost coming out of the bride's tiara blends into the train line posts above the wall. Clone the lamp out from the sky using the Clone Stamp tool, doing the same with the main post.



FINISHING UP To finish off the image, clone a light area of foliage into the wedding car mirror, remove the gas sign from the grass, and crop all the elements that we didn't need around the edge of the image. It's that simple!



THE PANEL



Adam EvansThe illustrious editor of
Digital Camera Magazine



Tom Ang Prolific author of many digital camera books

YOUR PICTURES

EMAIL YOUR BEST SHOTS TO EDITOR.DCM@FUTURENET.CO.UK PHOTOSHOP



NAME OF PICTURE Dame5

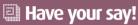
The model is a full-sized doll for fashion design. I arranged her arms, and used a low angle for taking the picture. In Photoshop I used filters and colour adjustments.



TOM You can do much to an image if its shape is right, but this pose is awkward e.g. fingers over forehead. The effects aren't much help either.



ADAM No way, Tom! I love this image – from the pose to the heavy use of filters. It's subjective but there's something about it that just works.



Email your comments to editor.dcm@futurenet.co.uk or join us on the forums at www.dcmag.co.uk/kjelldahle





OJohn McDougall

NAME OF PICTURE Kid Kong 2

This is my attempt at the Kid Kong tutorial - it was an imaginative





TOM An eerily calm horror moment! The key is in the lighting: you were nearly there, but try making the child-monster much darker as befits a night-shot.



ADAM A near perfect rendition of our Toddler Terror project! The edges of the legs, however, need to be blurred to fit seamlessly into the background.

Paul Brackel

NAME OF PICTURE House and pond

I have produced my first master piece in Photoshop by replacing almost all lawn in my backyard with a pound and some birds in it





TOM One little refinement will help complete this quiet idyll: show the pink walls of the house and plants to the right reflected in the water.



ADAM A fun project, but the edges of the fake lake (try saying that ten times quickly!) need more work in order to look natural.

Your verdict!

What did you think of last month's lead image? Here, we select the best of your opinions...

Tom said Great light and location, but sadly your timing was out by mere seconds – unless there's a good reason for cutting their heads with the horizon?

Adam said Wonderful colours and very evocative but it would benefit from a lower shooting position, as Tom says. Nevertheless, a striking shot.

YOUR COMMENTS

Mark Mathers The horizon cutting through their heads doesn't bother me at all. I think it's an excellent shot with great silhouettes – I only wish my sunsets were as good.

good but not great. The red's a bit overdone to be honoest and the focal point doesn't really grab your attention the way it could.





Results come quickly with the PowerShot A80. Its superb range of features include 4.0 Megapixel resolution to capture the smallest details and 3x optical zoom lens for a sharp shot. For achieving greater creative control, the A80 offers 12 shooting modes, including 2 custom settings and optional accessory lenses. To shoot images that require tricky positioning, use the vari-angle LCD. Print directly from the A80 using Canon Direct Print or with the new PictBridge technology and you'll see how your skills develop instantly! Once you explore everything the PowerShot A80 can do, you will soon discover talents you never knew you had. For more information visit www.canon.co.uk





SONY

Find your perfect partner perf

With a wide range of choice in the digital camera market, finding a camera specific to your needs may seem like looking for the proverbial needle in a haystack. But we're here to help. To ensure you're better equipped to make an informed decision, read on...

What's your type?

igital cameras are fun, easy to use and versatile and offer a host of benefits over film cameras – even if you don't go near a PC. You can instantly review your shots, reshoot them or email your pictures to friends. And now you can get photos at a quality and price that rival your film camera, from virtually any photographic store on the High Street.

That's the simple part. But how do you choose the camera that's best for you? Well, first you need to decide on the type of camera you need. The diagram below should help you do this.

Another way to narrow things down is to decide what type of photographer you are. If you're the classic point and shooter that wants a good all rounder for holidays and weddings, take a look at the P32, P52, P72 or P92. Or if you want something more compact with a metal body and plenty of style, the P8, P10 or special edition P12 may be your perfect partner.

Are you the clubber, pubber or outdoor type, looking for a camera that fits in the pocket of your jeans and lets you capture all those unexpected moments? If so, the Cyber-shot U range has what you need.

Or maybe you're a little more experienced and enthusiastic about the art of photography; perhaps you already own a film SLR and want something that offers similar levels of manual control and end result. If so, then the compact V1 or the F717 with its rotating lens meet the most demanding needs.



Do you need full control over shutter speeds and apertures and the ability to make large prints?

NO

Are compactness and a metal body key factors for you?

YES -

Is ease of use and pocketability more important than zoom or large prints?

Take Control

The Cyber-shot enthusiast range offers premium image quality and full photographic control.

These award-winning cameras include the Cyber-shot V1, a compact 5 megapixel powerhouse with a 4x Carl Zeiss lens, the unique Mavica CD-500, which records pictures directly onto CD, or finally, for the ultimate in quality and control check out the Cyber-shot F717.



Quality Fun

You need a camera that combines great quality with ease of use in an affordable package. The Cyber-shot $^\prime P^\prime$ range offers great results and ease of use for all budgets.

These cameras offer a choice of options, from the compact 3 megapixel P32, adding 2x zoom with the P52 or 3x zoom with the P72, or step up to an impressive 5 megapixels with the P92.



Style & Substance

For those who demand the best of both worlds. You need a camera that is both compact and stylish and capable of top class results. Check out the Cyber-shot ultra compact 'P' range. Marvels of engineering and design,

these cameras include the 3 megapixel P8 and the 5 megapixel P10. And, for just a few extra pounds, the special edition dark blue P12 comes with a spare battery and exclusive leather case. All models have a 3x optical zoom lens.



Cyber-shot U

Take a look at the Cyber-shot U range: The ultimate marriage of ease of use, sophisticated features, and photo quality prints, all in a body small enough to take anywhere.

The Cyber-shot U range includes the 2 megapixel ultra compact U30, available in four different colours, the U50 with a rotating lens so you can shoot from any angle, and the unique U60 – the perfect pocketable waterproof camera.



Cyber-shot

What's next?

Once you've decided on the type of camera you're looking for, how do you take things further? The next things to consider are effective resolution and optical zoom. Effective optical what?! Let us explain...

camera's resolution is measured by the number of pixels (short for PICture ELements) that are derived from the light sensors on the camera's imaging chip (called a CCD). Each pixel is essentially a dot of light, millions of which (megapixels) make up a whole picture.

As a general rule, the more megapixels a camera has, the better the image quality or, to look at it another way, the larger you can print your photos. However, not all pixels are the same: only effective pixels give a true comparison of image quality: these are the actual pixels on the camera's CCD that are used in the final image.

Some digital cameras state much higher 'output' or 'recorded' pixels, which are created using software in the camera to artificially boost the megapixel figure claimed, and do not actually offer the image quality

gains they may appear to suggest.

The resolution is only a small part of what ultimately determines the image quality a camera is capable of: for more on this, read the 'Image Quality' section below.

Optical zoom

When framing a shot, it's often helpful to zoom in on your subject. An optical zoom lets you do this without losing quality, by physically moving the lenses inside the camera. It is important to distinguish between this and digital zoom, which crops the shot, thereby discarding pixels so that image resolution is compromised. Optical zooms are available on Cybershot cameras from 2x to an impressive 5x. Cyber-shots also offer Smart Zoom, which is an enhanced digital zoom that does not diminish quality.



The Sony difference

Now you have a good idea of what you're looking for, why would you choose a Sony Cyber-shot to spend your hard earned cash on? Well, once you've chosen the number of pixels and zoom you need, there are several other factors that will make a big difference to your long-term enjoyment of digital photography. Here are just a few ways in which a Cyber-shot can help

IMAGE QUALITY

In addition to the camera's resolution, image quality is derived from a range of factors including lens quality, accuracy of focus and exposure, CCD quality, and the in-camera processor that turns the output from the CCD into a digital image file. Every Cyber-shot meets these challenges head-on:

Sony Super HAD CCDs gather more light onto each pixel, for brighter, crisper shots. All Cyber-shot models incorporate Super HAD CCD technology.



Sony 14-bit DXP (Digital eXtended Processor) technology is capable of processing more image data from the CCD, which makes a big difference to the final colour, contrast and detail of your photos. All Cyber-shot

cameras except Cyber-shot U models incorporate 14-bit DXP.



On all enthusiast-level Cyber-shot cameras, Sony has teamed up with world-renowned optical company Carl Zeiss to create lens systems that deliver unparalleled clarity, contrast and colour rendition.

DESIGN & INNOVAT

Quality and innovation are hallmarks of Sony. In the Cyber-shot range this is put into practice not only by uncompromising build quality and ergonomic designs, but also in the intuitive, easy-to-use menu systems and controls. Then there are unique technologies to consider, such as the pin-point accuracy of Hologram AF, or the low-light shooting capabilities of NightFraming.

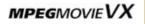
MORE FOR

Every Cyber-shot includes a host of features that make your digital photography more enjoyable. Examples include:



■ STAMINA rechargeable batteries and a charger are included with every Cyber-shot, to give you the best power performance time after time. So

you need never miss another shot.



■ MPEG VX gives you high quality, full-TV screen movies with sound. And you can

record for as long as you like: your movies are limited only by the capacity of the Memory Stick you use.



■ With Memory Stick, you can share your pictures and movies across a huge range of devices, including printers, palmtop computers,

mobile phones, TVs and of course PCs and laptops. Every Cybershot offers full compatibility with all Memory Stick formats, including the high capacity, high speed Memory Stick PRO.



For a chance to win this fabulous prize, simply answer the question below:

How many effective pixels does the Cyber-shot P10 have?

Your answer
Name
Address

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A cash alternative to the prizes is not available. We reserve the right to substitute prizes of equal or greater value. The editor's decision is final. No correspondence will be entered into. Closing date 31/12/03

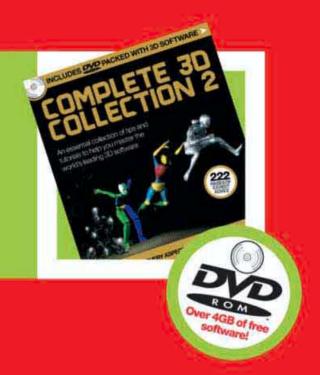
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N-DEPTH GUIDE

A-Z OF LAYERS

Vector layers aren't just for those interested in drawing. **Lori Davis** examines how to use them

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ERASING A BACKGROUND

Chris Schmidt explains how to isolate an object using Paint Shop Pro's new Background Eraser tool

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PAINT SHOP PRO TOOLS

WARPING IN PAINT SHOP PRO

Add a Dali distortion to your images with the help of the Warp tool and **Chris Schmidt**'s know-how

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DIGITAL PHOTOGRAPHY TECHNIOUES

Check out our sister title for even more expert Photoshop, Elements and Paint Shop Pro solutions. In issue 6 (on sale 13th November) we show you how to combine images into panoramas and create a Victorian-style calender using Paint Shop Pro techniques.



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Paint Shop Pro layers Part 4

You don't have to be interested in drawing to find vectors useful. Lori Davis explains all

VECTOR LAYERS **KEY DETAILS**

ON OUR DISC ■ IMAGE FILES

Paint Shop Pro plug-ins are available on CD/DVD in the 'Paint Shop Pro layers quide' folder. All images on discs for non-commercial use only

SKILL LEVEL

5

TIME TO COMPLETE **MINUTES**



EXPLAINED

VECTOR OBIECT

A shape or curve defined by instructions for how the object is drawn and what its properties are. Unlike a raster figure, a vector object can be resized or deformed with no degradation in image quality.



his is part four of our quide to Paint Shop Pro layers. Last month, we looked at mask layers, which modify the opacity of another layer or group of layers. This month, we'll recap some of the topics we examined in earlier parts of the guide and take a look at vector layers and their use in photographic images.

Vector layers

Vector layers are quite unlike any layers we've examined so far. A vector layer contains one or more vector objects, which can be lines, shapes, or text characters. A figure on a raster layer is a collection of pixels painted on the layer, but a vector object is really a set of instructions on how the object is drawn and what its properties are. The fact that a vector object is a set of instructions, rather than a fixed collection of pixels, gives it two handy properties: the shape of the object can be precisely controlled, and the object can be resized or deformed with no loss in image quality.

The Preset Shape and Pen tool

You can add a vector object to your image by defining a shape with the Preset Shape tool or by drawing one or more lines with the Pen tool. Each tool can be used either in raster mode or vector mode. For vector mode, choose Create as Vector on the tool's Tool Options palette. If you already have a vector layer as the active layer, the new line or shape is placed on that layer. If the active layer isn't a vector layer, a new vector layer on which the object is placed is added above the active layer.

A vector object is made up of nodes and segments connecting the nodes. The nodes and segments that make up the object are called the object's path. When the object is rendered, any stroke (outline) straddles the path. and any fill fills in the shape defined by the path.

With the Preset Shape tool, you can choose Retain style to draw the shape with its default stroke and fill. Alternatively, you can choose your own stroke and fill on the Materials palette if you first uncheck Retain style.

With the Pen tool, the stroke is what you think of as the line itself, and the fill is placed within the shape defined by the lines or curve that you draw. To draw a line, click the Drawing Mode button on the Pen tool's Tool

Options palette, and choose one of the Segment types: Line Segments, Point to Point, or Freehand.

With Line Segments, click on a start point for your line, then drag to draw a line. If you want a series of connected lines, be sure that Contiguous is selected on the Tool Options palette.

With Point to Point, you can click to define the start point, then click to define the next node in a series of line segments, and so on, until you have all the line segments for the shape. If you want nodes that are connected by a curve rather than a straight line segment, click and drag. You'll see control handles radiating from any node you define in this way. You can change the size of the curve by dragging one end of a control handle either toward the relevant node or away from it. You can also change the shape of the curve by swivelling the handle around the node.

With Freehand, you simply draw a freehand curve. Paint Shop Pro puts in the nodes and segments needed to define the curve you draw.

Although we won't go into the details, you should also know that you can edit a shape or line once you've drawn it. To do so, choose the Pen tool and select Edit Mode. Select a node by clicking it. The node's control handles then appear, enabling you to modify the segments on either side of the node. You can also select multiple nodes by dragging a box

DECONSTRUCTED: VECTOR LAYER

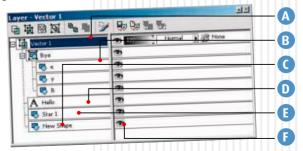
From Blue Boathouse Bay

A. LAYER BUTTON: Each vector layer has a button. B. OBJECT BUTTONS: Objects on a vector layer each have their own object button below the layer button of the layer on which they reside. C. NEW SHAPE BUTTON: The object button of an object created with the Pen tool is labelled New Shape

D. VECTOR TEXT: Vector text is labelled with the text string.

E. NAME OF SHAPE BUTTON: The object button of an object created with the Preset Shape tool is labelled with the name of the shape.

F. CHILD OBJECT BUTTON: The object button of text whose characters have been converted to separate curves has child object buttons for each character.







PAINT SHOP PRO A-Z OF PAINT SHOP PRO LAYERS - PART 4

VECTOR TOOLS

It's easy to create vector objects with these versatile tools. Just select the right one for the task, and away you go...

THE PRESET SHAPE TOOL

Draw ready-made shapes with the Preset Shape tool. After defining a vector shape, you can resize or rotate it by dragging the handles on the corners or sides of the box surrounding the shape. You can deform the shape in various ways by holding down



the Shift or Ctrl key (or both) as you drag a handle on the surrounding box. You can also modify a vector shape with the Pen tool or change the

shape's colour and other properties with controls in the Vector Property box, accessed by double-clicking an object's button on the Layer palette.

THE PEN TOOL

With the Pen tool in its Drawing Mode, you can draw your own lines and shapes using one of three Segment types: Line Segment, Point to Point, or Freehand. In Edit Mode, you can manipulate the nodes of a vector object, whether or not it was created with the Pen tool. Select a node by clicking it, then adjust the node's control handles. You can



Transformations. The Transformations enable you to the section of the shape between the nodes.

also select multiple nodes and apply any of several duplicate the nodes, or to expand, contract, or skew

THE TEXT TOOL

Enter vector text with the Text tool. Besides setting the font, size, and other attributes, you can adjust the kerning (the space between characters) or the leading (the space between lines). You can make text conform to the path of another vector object: define the path, then click the path with the Text tool and enter your text. Vector text can be used as it is or converted to



curves. Text can either be converted to a single curve or converted so that each character makes

up a separate curve. Text converted to curves can be edited with the Pen tool.

EXPERT TIPS



LORI J. DAVIS PSP EXPERT

CHANGING VECTOR PROPERTIES

To modify a vector object's stroke or fill or to turn anti-aliasing or visibility on and off, double-click the object's object button on the Layer palette to call up the Vector Property dialog box. Make setting changes and then click OK to apply the changes.

USING DIGITAL TRACING PAPER

When using the Pen tool to create a precise path around a figure, lower the Opacity of the vector layer to 0 so you can see the entire raster layer underneath. The fill on the vector layer disappears, but the nodes and segments still show up.

around a set of nodes. Once you've selected the nodes, you can modify them all at once with the Transformations available on the Pen tool's Tool Options palette.

Raster selections from vector objects

For photographers, one of the handiest uses of vector objects is to define a precise path around a figure using the Pen tool. Once you define the path, you can convert it to a raster selection. Be sure that there is no stroke, only fill. Then choose Selections ⇒From Vector Object. You can then hide the vector object using its Visibility toggle on the Layer palette or delete the vector object altogether.

You can also use shapes created with the Preset Shape tool as the basis for a selection. Choose the Preset Shape tool, uncheck Retain style, be sure that there is fill but no stroke, and draw your shape. When the shape is as you want it, choose Selections ⇒From Vector Object to create a selection from your shape.

Adding text

You can also add text in Vector mode. Choose the Text tool, and in the Create as Drop-down list on the Tool Options palette, select Vector. Select any other options that you want for your text, and click in your image. The Text Entry box appears. Enter your text there and then click Apply. Your vector text is added to the current vector layer (or to a new vector layer if the current layer is not a vector layer). There is a box around the text. You can use the control handles of this, in order to resize, reform and rotate your text.

Text on a path

It's very easy in Paint Shop Pro to make text conform to a path. First, define a vector curve or shape with the Pen tool or Preset Shapes tool. Then choose the Text tool. It doesn't matter what you choose for Create as. Position the cursor over the path. When the cursor is in the proper position, a curve appears under the A label of the Text tool's cursor. When the cursor is in the right position, click and then enter your text in the Text Entry box. You'll see that the text conforms to the curve. Click Apply to exit the Text Entry box.

You probably don't want the path itself to be visible. To hide the path, click its Visibility toggle on the Layer palette. You'll then see only the text, which conforms to the invisible path.

Text effects

Paint Shop Pro provides many special effects in the Effects menu that are great for enhancing text. The 3D effects, such as Inner Bevel and Drop Shadow, are especially useful for enhancing text. As we'll see in the tutorial, you can also use Curves, which is normally used to adjust brightness and contrast, to produce glassy or metallic effects.

Keep in mind that you can't apply effects to objects on a vector layer. However, you can convert a vector layer to a raster layer, and then apply whatever effects you want to the new raster layer.

To convert a vector layer to a raster layer, make the vector layer the active layer, and then choose Layers

Convert to Raster Layer.

■

what to do

Vectors come in handy for photographers, so learn how to make the most of them.





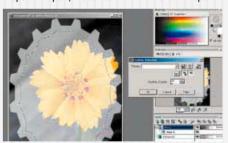
CREATE A PRECISE SELECTION

Use the Pen tool with Segments set to Point to Point to define a path around an object. Be sure that Stroke is set to 0, convert the object to a selection, then delete or hide the vector object.



CREATE TEXT ON A PATH

Define the vector shape. Use the Text tool in any of its modes (Selection, Floating, or Vector) to place text on the path. When you're done, hide the path. If you change the shape of the path, the text conforms to the new shape.



ADD A FANCY VIGNETTE

Simulate a novelty vignette with the Pen or Preset Shape tool. After defining the shape of the vignette, convert the vector object to a selection and feather it. You can then blur the photo's edge or modify its brightness or colour.



ADD A DECORATIVE BORDER

Use the Pen Tool or Preset Shape tool to add a decorative border to your photo. You might, for example, use several rectangular objects, with wide strokes and no fill, that are placed one on top of another to simulate matting.

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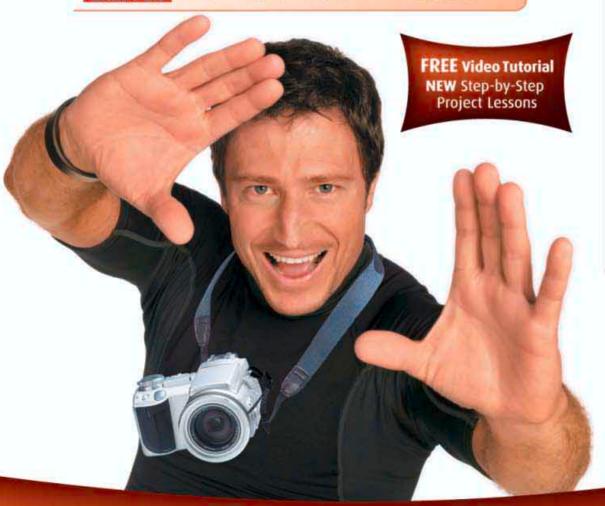
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Fitting previously applied text to a path

You can make existing vector text conform to a path. Define your path, then select the vector text and the shape or curve that defines the path. Right-click the object button of the text or path and choose Fit to Path



EXPERT TIP



LORI J. DAVIS PSP EXPERT

TEXT ON TEXT

You can use vector text as a path on which to place other text. For example, you can add vector text, place a series of characters along the path defined by the vector text, then hide the vector text. The characters follow the outline of the invisible vector text.

CREATE A UNIQUE GREETING CARD

Use vector layers to add a vignette and text on a path, creating a seasonal card with a wintry scene





DEFINE THE VIGNETTE AREA Choose the Selection tool and set it to Ellipse. Define a selection for the vignette by dragging the ellipse from the centre of the image out towards the edge. Invert the selection to select the area outside the ellipse, by choosing Selections # Invert. Feather the selection a bit with Selections *Modify *Feather.

DARKEN THE EDGES 02 Add a new adjustment layer with Layers # New Adjustment Layer #Hue/Saturation/ Lightness. Leave the Hue setting at its default setting of 0, but lower the Lightness slider to darken the edge of the photo. If necessary, adjust the saturation with the

Saturation slider. Deselect with Ctrl+D.

CREATING THE PATH Select Ellipse from the Preset Shapes tool set, with Retain Style checked, and draw a shape that matches the basic shape of the vignette but that's slightly smaller. If necessary, adjust the size and positioning of the shape. Deselect the newly added vector shape with Ctrl+D.



EXPLAINED



LORI J. DAVIS PSP EXPERT

STROKE AND FILL

For a shape, the stroke is what you normally think of as the shape's outline, and the fill is the colour, pattern, or gradient inside the shape. For a curve, the stroke is what you normally think of as the curve itself, and the fill is a colour, pattern, or gradient that fills in area within the curve.



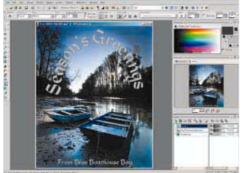
ADDING TEXT ON THE PATH Choose the Text tool, and set it to Vector, Centre Align, and Stroke 1. Choose the font and font size. In the Materials palette, set Stroke to dark grey and Fill to light grey. Click the top centre of the ellipse, then enter the text in the Text Entry box. Click Apply.



HIDE THE VECTOR PATH On the Layer palette, click the Visibility toggle for the vector ellipse. The ellipse will disappear, but the text will still conform to the path. (If you want to adjust the size or shape of the ellipse later, just toggle Visibility back on temporarily and make your change.)



ADD THE LOWER TEXT Choose the Text tool, and set it to Vector and Align Left. Click the bottom of the image where you want the text to begin. For now, don't be concerned about whether the text is centred horizontally. Enter the stroked text as before, this time using a smaller font size.



NEXT MONTH

PERFECT SKIES Transform your outdoor photos by replacing and enhancing skies



ALIGN THE TEXT PERFECTLY ON **THE CANVAS**

Select the two text objects: click the object button of one and then hold down the Shift key and click the object button of the other. Choose Objects *Align * Horz #Centre in Canvas. The text on the path and the smaller text are centred horizontally in the image.



ADD AN ICY EFFECT Right-click the vector layer's layer button and choose Convert to Raster Layer. With the raster text layer active, apply Inner Bevel. A round bevel shape works well with most fonts. Then choose Adjust * Brightness and Contrast *Curves. Define an M-shaped or W-shaped curve and click OK.



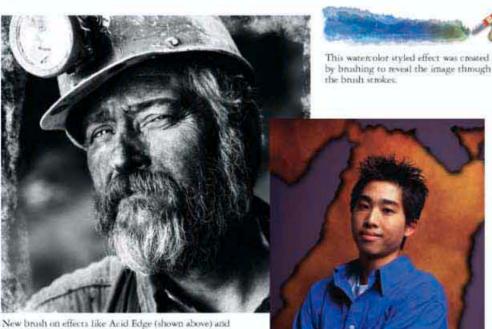
MELT THE ICE Now Choose the Warp Brush, and set it to Push. Drag it into the top of the text and drag bits of the text away at the bottom to simulate ice melting. Finish your greetings card by adding a drop shadow to the text and then set the text layer's Blend mode to Hard Light.

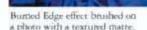
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The newly released version of Photo/Graphic Edges includes new tools that allow you to brush edges and effects on to your photos. Also included are effect layers, visual presets and lots of fun new effects and content.

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Burned Edge (shown right) give you precise control over the creative process as you brush on the effects where

you want them.

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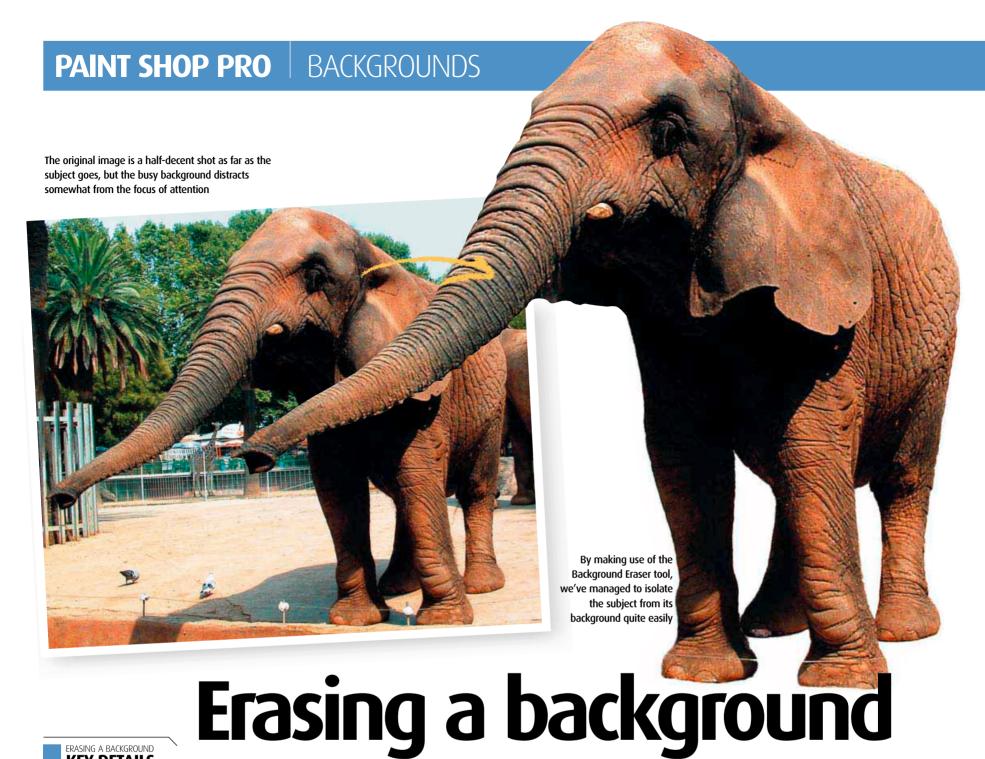












ERASING A BACKGROUND **KEY DETAILS**

ON OUR DISC

■ IMAGE FILES All the elements you need are on your cover CD/DVD in the 'Erasing backgrounds' folder. All images on discs are for

non-commercial use only

SKILL LEVEL

4

TIME TO COMPLETE **MINUTES**



Isolating objects in PSP 8.0 has become an easier task, explains Chris Schmidt, thanks to the new Background Eraser tool

solating objects from one image to use in another one is a relatively common task that you'll face as you develop your image-editing skills. The technique is useful for creating composite imagery that might be almost impossible to achieve in real life – like a bee approaching a flower. If you have individual images of a bee and a flower, you can simply extract the bee and position it onto the flower image for a shot that looks as though you had endless patience, waiting for the right photo opportunity.

There are various methods to do this in Paint Shop Pro, but these can be either too unreliable, such as using manual selection; or too ambitious for such a relatively simple task, like masking. However, with the Background Eraser tool – new to Paint Shop Pro 8.0 – the process is made much easier, and it can result in some impressive images.

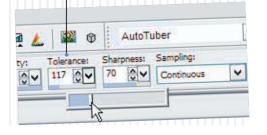
The tool enables some variation in the way it's managed, which is important to understand because each image has its own, unique attributes that need to be considered. With just a little understanding of how this powerful tool can be configured, you'll be able to get the most natural results.

The effectiveness of the tool relies on its configuration and on the composition of the image. If there isn't enough contrast between the foreground and background image, you risk running into the subject, so you may need to decide whether to use alternative methods, such as the more precise controls that are available through masking.

A final word of advice: make use of plenty of short, precise strokes as you apply the effect. This way, if you do make any mistakes you'll be able to undo minimal areas without having to retrace your steps excessively.

EXPLAINED TOOLSCHOOL

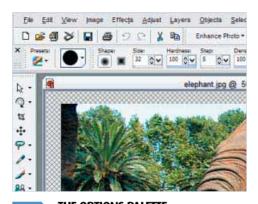
If you're having trouble controlling the amount being erased, clear the Auto Tolerance check box and use the manual controls. If too much is being erased, then lower the tolerance levels or, alternatively, raise it to increase the amount being removed.



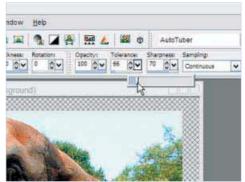




MEET THE ELEPHANT 01 Open the elephant.jpg file from the coverdisc for an image that has an interesting subject but a busy background. Select the Background Eraser tool that is grouped (and may be hidden) under the Default Eraser tool.



THE OPTIONS PALETTE 02 The options for the tip, size, opacity, hardness and so on, are the same options as those for a regular brush. A hard-edged brush – at around 32 pixels in size, with its hardness at 100% - will usually achieve the best results.



SET THE TOLERANCE 03 Checking the Auto Tolerance option will be fine for this image, although if you need more control over complex extractions, then uncheck this and make use of the slider that ranges from 0 to 200. Lower settings will restrict the effect to only the most similar colours.



EXPLAINED



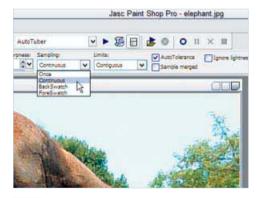
CHRIS SCHMIDT'S OPTION ADVICE

BACKSWATCH AND FORESWATCH OPTIONS

The Backswatch option erases all pixels that match the current background colour specified in the colour palette instead of sampling from the image. The ForeSwatch option matches the foreground palette colour.

DISCONTIGUOUS OPTION

This is an option found under the Limits range and allows similar colours to be erased regardless of whether they are adjoining the sampled region. This can be useful for removing the background from subjects where the background is displayed within the body of the image such as a sieve or net.



SIMPLE SAMPLES 04 The sampling options are an important aspect of the tool to understand. This dropdown enables you to determine the range of pixels to be considered for removal. Continuous is the best choice for our image because the background content changes as Paint Shop Pro adapts the parameters.



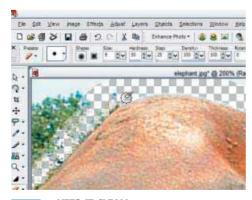
STRETCH THE LIMITS This controls whether erased pixels should be adjacent. Set this to Find Edges and paint over the background of the subject around the rear legs, taking care to keep the centre of the brush on the background with the edge overlapping onto the subject.



FREE STANDING 06 Continue drawing around the legs. This should be a quick and easy process because the contrast between the foreground subject and the relatively flat colour background is quite easy for Paint Shop Pro to distinguish.



CONTIGUOUS SELECTION The background to the remainder of the image is a little too busy to use this method so change the Limits option to Contiguous. This is a better choice when the background is close in colour to the foreground subject. Continue around the subject with these settings.



KEEP IT CLEAN The tool can only be as effective as its configuration, and how the background relates to the foreground. Once you've gone round the subject, you may need to zoom into areas using the regular Eraser tool in order to tidy up where close colours occurs.



REMOVE THE BACKGROUND With the subject isolated from its immediate background, we can continue to remove the remaining areas quite easily. Use the Freehand Selection tool to highlight the remaining background and simply delete this to leave the final result.



EXPLAINED

CHRIS SCHMIDT'S LAYER TIP

SAMPLE MERGED

If you're working on a multilayered image then making use of the Sample Merged option will treat the entire image as a single laver, effectively flattening the image. This can be useful for isolating object within context of a larger image.

Using identifiable imagery for an abstract experiments is often a good idea - the viewer will know what the original image looks like





Distort your images for some more creative results, says **Chris Schmidt**, using the Warp tool, new to Paint Shop Pro 8.0

apturing images as true to life as possible is a goal for many photographers as they attempt to get the most accurate impression of their subject. But if photography is to be considered a true art form, then it's also necessary to attempt to get some more imaginative results.

> If you look at painting as an example, many artists strived for the perfect, realistic image, and although there's much to be said for their skills and techniques, it can also be argued that their style had some limitations. It wasn't until developments by artists such as Picasso and Dali, that the medium moved towards a more creative approach.

Creative thinking

Photography is no different, and although we can't claim to make you as celebrated as the great masters, we can help you think a little outside the box of regular photography. And Paint Shop Pro is a great tool to do this with, especially its new Warp tool. In version 8.0, the

With only a few of the Warp modes applied, Big Ben appears to melt in the blistering heat...

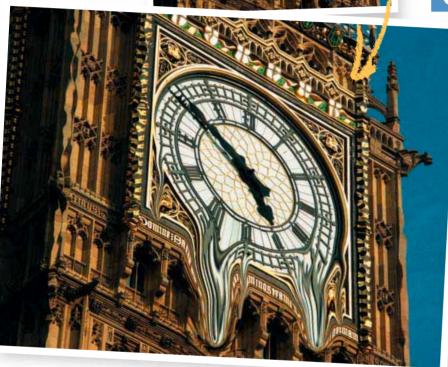
tool allows some creative expression to become possible with digital imagery, and it works by treating an image as though it's saturated with wet inks that can be manipulated for some unique and creative results.

Tools of the trade

The Warp tool is found with the Paint Brush and Airbrush tools. The tool inherits attributes from its relations, such as the ability to configure different brush sizes and characteristics that will affect the result. But, within the actual tool itself, there are a number of different modes that are available within its related Options palette, and these will enable you to push, expand, contract and twirl your image out of all recognition.

A key skill in achieving this is to make use of the Iron and Unwarp options that become available once an image has been affected. This way you can revert to a previous stage if things don't quite work out, and tweak effects to restore certain elements for more complex results

You can use the tool to keep some identity to the original image, while applying distortion, so that things look almost believable. Alternatively, if you want a bit of fun, you can use the tool to really warp things. If you try using it to distort the facial features in a portrait shot, for instance, make sure that the subject has a sense of humour first!



KEY DETAILS

ON OUR DISC **■ IMAGE FILES**

> All the elements you need are on your cover CD/DVD in the 'Warping in Paint Shop Pro' folder.

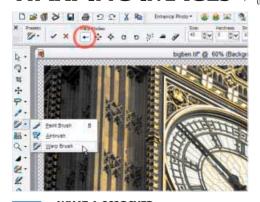
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SKILL LEVEL

TIME TO COMPLETE **MINUTES**



WARPING IMAGES



WHAT A SCORCHER Select the Warp tool (grouped with the Paint Brush and Airbrush tools) and choose the Push Warp mode available within the Options palette. Set a brush of around 80 pixels and click and drag a few streaks from the bottom of the clock face.

Here we've created a Dali-esque image of the melting Big Ben clock face



ALTER REALITY Next, choose the Expand mode and draw over some of the straight lines contained within the image such as the clock hands and the corners of the tower. Using a snaking motion as you follow the natural lines will generate a more twisted effect.



A LITTLE HOUSEWORK If the results have become too exaggerated then make use of the Iron Out or Unwarp modes available to rectify certain areas. Continue to experiment with the other modes for twirling the image or adding noise until you're happy with the final results.



How to Enter

All you need to do is answer this simple question:

Which football club does dabs.com sponsor?

· Brighton & Hove Albion

To enter the competition, visit the website

- · Fulham FC
- · Real Madrid

www.dabs.com/digital camerashopper and follow the on screen instructions, or send a postcard to: Fulham Photography Competition, Digital Camera Shopper, 30 Monmouth Street, Bath, BA1 28W The competition closing date is 7th January 2004.

Rules:

- 1. Employees of Future Publishing, dabs.com and Canon are not allowed to enter. Nor are their friends and family.
- 2. The first correct answer drawn out of the hat after the dosing date, which is the 7th January, will be the winner. The second correct answer will be the runner up.
- 3. By entering the competition you grant the promoters the right to use your name and likeness for the purpose of advertising and promotional purpose.
- 4. No purchase necessary

Win a Canon 300D and a day with a sports photographer

Have you ever fancied your chances as a professional sports snapper?

Sports photography is one of the hardest disciplines in the business; superhuman timing, tolerance of bad weather and unsociable hours are all part of the job description. Fortunately, the pictures are worth it, full of the drama and passion of sporting achievement. Some of the most memorable images of the century are from the sporting field; be that race track, pitch or pool. And, of course, as a professional sports photographer, you get to see loads of great events for free.

We've teamed up with dabs.com - the UK's leading online technology retailer and official men's team sponsor of Fulham FC to offer one lucky reader the chance of a

lifetime. If you've ever wondered what it's like to spend your working life attending Premiership Football matches, here's your chance to find out!

Our winner will spend a day with professional photographer Javier Garcia at Fulham's training ground in South West London. After shooting some of the Premiership's hottest stars you will get the inside track on just how photographs end up on the back pages and a series of top tips for taking the best possible action shots.

You and a friend will then be invited to a Premiership fixture at Loftus Road where you will have the opportunity to take a behind the scenes tour and get a glimpse of how

professional photographers work. We'll then feature your work in a future issue of Digital Camera Shopper.

Naturally you'll need a camera capable of doing the moment justice, which is why you will also be given a brand new 6MP Canon EOS 300D SLR camera, complete with 18-55mm lens kit. You'll also receive a Canon 1450 printer, to make sure your pics are printed to the best quality.

One runner-up will receive a 4Mp Canon Powershot A80.



THE UK'S BIGGEST MONTHLY BUYERS' GUIDE



REVIEWED THIS MONTH: Fuji S7000, Pentax 555, Casio Z4, Canon Ixus i, Pentax Optio S4 PLUS: Winter Wildlife special

The definitive monthly guide to digital photography kit for all budgets. With over 450 independent reviews over 196 pages, it's the perfect complement to Digital Camera Magazine









Section highlights...

CAMERA CONTROLS

SHOOTING MODES

In the first part of a new series, **Andrea Thompson** explains how to use shooting modes

TOP TEN

GREAT MOUNTAINS

Climb to new heights with your photography. **George Cairns** is your quide

HOTLINE

YOUR PROBLEMS SOLVED

This month, **Aidan O'Rourke** gives advice on filters, cleaning up scans and brightening photos

PHOTO CLINIC

IMPROVE YOUR PICTURES

Our resident expert, **Andrea Thompson**, gives advice to help readers improve their photos

YOUR PICTURES

GIVE IT YOUR BEST SHOT

Adam Evans and **Tom Ang** give their opinions on your submitted photographs

HOME STUDIO

SETTING UP A STUDIO ON A BUDGET

In the third part of our series. **Tim Daly** explains how to control still-life lighting

Shoot

Take better photographs...

Digital Camera Shopper is on sale now for just £3.99 at all good newsagents. With 196 pages of the best photographic advice, a CD packed with full software, filters and everything you need for cityscape shots, it's the best value digital photography mag around. So if you're looking for a second opinion about kit, come to the experts... come to the experts...



Tutorials you can trust!



Our aim is to bring you creative ideas, expert tips and quick fixes you can use in your own work. Authoritative A leading professional in his/her field writes every tutorial. Value-added We try to include

image files, and full or trial software so you can try the tutorial for yourself, delivering a complete package. Clear Our large page size means we can add extra elements, explanations and detail to each tutorial.

Contact our editorial team



If you have a comment, suggestion, idea or submission you would like to make, please email us at editor.dcm@futurenet.co.uk Visit our website at www.dcmag.co.uk







A complete no-brainer, in Automatic mode all users need to do is point and shoot' This mode will vield decent exposures, provided the subject is pretty straightforward and conditions are reasonably good.



PICTURE MODE Built-in exposure confused into underexposing predominantly light scenes such as this by as much as two stops In 'Sand and Snow Picture mode, the

compensates for this



Programme mode is perfect for users making the transition from beginner to intermediate level. because it selects the shutter speed and aperture, but enables users to control things such as exposure compensation and ISO



To pan a moving subject, select a shutter speed of around 1/15th sec, stop down and choose a slow ISO. Pan smoothly from left to right, starting the vement early and following through shutter click



SHUTTER PRIORITY

The facility to make bulb exposures is essential for most astronomy photography. If you want to avoid star trails, you need a camera mount that across the sky during the exposure.

MANUAL MODE Manual mode gives the user ultimate control over exposure It is often used in because shutter speed can be synchronised with flach while still enabling the user to have complete control over aperture settings



IN DETAIL



ANDREA THOMPSON'S APERTURE TIPS

F-STOPS AND F/NUMBERS

Apertures are incremental measurements of the iris diaphragm of a lens, and are denoted by a universal scale of f/numbers or F-stops. Confusingly, the larger the aperture, the smaller the f/number and vice versa, and each adjacent stop admits exactly half as much light as the previous stop. Typical settings include f/2.8. f/4. f/5.6. f/8, f/11, f16 and f22, but some (very expensive) SLR lenses will stop down as narrow as f/45 or open up as wide as f/1.0. The wider the aperture, the shallower the depth of field and visa versa.

hatever your camera, the salvo of available dials, switches, buttons, slots, sockets and menu options means there are probably certain functions and settings that baffle you. That's why over the following months, we're going to take a close look at each and every part of your camera; examining how it works, why you should know about it, and how best to use it. We'll kick off with shooting modes, which typically appear on the main 'Command' dial.

Auto (A)

Almost all consumer compacts feature an Automatic shooting mode, in which the camera controls the exposure, and decides on the best combination of settings according to the conditions. If you're a novice, it's the perfect choice, because all you have to worry about is composing the shot and pressing the shutter button.

Another great example of how panning across moving subjects can create the illusion that they are travelling at super-fast speeds

users have complete control over the camera's advanced exposure tweaks (such as auto-bracketing and white balance). Programme mode is therefore perfect for photographers who are starting to get to grips with more complex operations, but who don't yet feel confident enough to set the aperture or shutter speed manually. It's also ideal for impromptu situations that require a super-fast response. This mode is featured on most mid-range compacts, but only top prosumer and SLR models feature the associated 'Program shift' function. This offers multiple combinations of shutter speed and aperture settings, each of which guarantees the same optimum exposure.

Programme mode is perfect for creative photographers who don't yet feel confident enough to set aperture or shutter speed

Picture/Scene modes (♠ ≪ ♠ ▲ 🍱)

Picture modes are designed to give inexperienced users more control. They automatically optimise exposures to suit particular subjects and/or shooting conditions. For example, in Night-time Portrait mode, the camera opens up the aperture to throw out the background, adds a burst of flash to expose the subject and holds the shutter open to capture the background. The most common Picture modes are Sports, Portrait, Night-time Portrait, Landscape and Macro, denoted by standard symbols. Less common examples include Sand and Snow, Fireworks Show, Panorama Assist, Party/indoor, Sunset and Backlight.

Programme/Programmed Auto/Program AE mode (P)

As with the Auto and Picture modes, in Programme mode the camera automatically selects the optimum shutter speed and aperture. The big difference is that

Shutter Priority (S, Tv)

A semi-automatic mode, Tv can be found on mid-range compacts and more advanced models, and enables the user to select the shutter speed manually. The camera then automatically selects the right aperture to guarantee optimum exposure. High shutter speeds are essential for sports and wildlife photography, while slower shutter speeds are required for low-light photography, panning or for creating artistic blur effects. Professional high-speed SLRs boast shutter speeds of between 1/16000th and 30 seconds, while mid-range compacts offer shutter speeds of between 1/2000th and 1-15 seconds. This is adequate for a surprisingly large number of subjects. For example, a galloping horse, a tennis serve or a 70mph car moving across the frame can generally be frozen by a speed of 1/1000th sec, while you can blur running water and create light trails using a shutter speed of 1/30th sec.



Aperture priority (A, Av)

Av enables the user to select an aperture, leaving the camera to calculate the shutter speed required to expose the image correctly. Aside from controlling the amount of light hitting the CCD, aperture priority is used to control depth of field in conjunction with subject distance and focal length. If you want professional depth of field control you need an interchangeable lens SLR.

Manual (M)

Manual mode is available on most prosumer compacts and all SLRs. It provides ultimate control over exposure. and requires the user to set the shutter speed and aperture manually. In this mode, a camera will display a flashing exposure indicator if it thinks the photo will be under or overexposed at the chosen settings, but most photographers who work in Manual mode prefer to use handheld meters

Bulb (B)

Often featured on SLRs, bulb mode enables the shutter to be held open for an indefinitely long time (usually as long as the shutter release button is held down). Bulb exposures are essential for capturing night scenes, lightning and astronomical phenomena. With today's superb lithium-ion batteries, a bulb exposure can last up to 1.5 hours, so don't forget your remote-controlled timer! Do bear in mind that exposures of longer than one second will begin to introduce noise; the intensity of which will increase as the exposure time increases.



EXPERT TIPS



ANDREA THOMPSON'S PHOTOGRAPHY TIPS

AVOIDING CAMERA SHAKE

With a standard lens, most people can hold a camera steady for the duration of 1/25th second exposure. and in ideal conditions for as long as 1/60th second, but for longer exposures a tripod is essential to avoid camera shake. As a general rule of thumb, when selecting shutter speeds in Ty or Manual mode, always choose a speed equal to, or faster than the reciprocal of the focal length of your lens.

AVOIDING UNDER OR OVEREXPOSURE

When selecting a shutter speed in Tv mode, if the correct exposure cannot be achieved using the available range of apertures, an exposure indicator will start to flash. You then have the option of choosing a different shutter speed, and/or employing exposure compensation, flash, a different ISO setting or an ND filter. The same procedure applies when using Aperture Priority

NEXT MONTH

METERING

We reveal how to get more from your camera's in-built metering systems







NEXT MONTH



TOP TEN MUSEUMS We cover ancient buildings and unusual exhibits

his is the first Top Ten feature that was open to submissions of readers' photographs taken outside the UK. Britain is blessed with some stunning mountain views (from the towering peaks of the Scottish Highlands to the undulating hills of the Lake District), but we decided to open things up a bit to include mountains from aboard – there's such a variety of awesome photo opportunities that international mountains offer.

Romanticism

The Romantic painters of the nineteenth century saw mountains as a worthy subject for their art. The medium may have changed from paint to pixels, but mountains are still a relevant subject today. Mountains are created by all sorts of geological events, from glaciers to volcanic eruptions, and this leads to a huge variety of textures and colours in mountainous areas. From the inviting, verdant hills of Italy to the warm, orange and brown

hues of the Australian outback, colour is a powerful tool that enables the photographer to evoke different atmospheres and emotions.

Holiday snaps

Machu Picchu in Peru is a popular holiday destination for adventurous travellers, and it's almost impossible to visit this location without filling your camera's memory card with stunning vistas of ancient Incan ruins built high among towering, craggy mountain peaks. The juxtaposition of man-made relics and the ancient geological features inspires a sense of awe in the hearts of visitors to the location. The photographer's job is to compose the shot to try to induce similar feelings of awe in the viewer.

Machu Picchu, the ancient fortress city of the Incas is a photographer's dream: five square miles of terraced stonework link by 3,000 steps...



Find a copy of 'Bradford Washburn: Mountain Photography' (ISBN 0898866901). This book features 100 photos of mountains taken by pioneering photographer, Bradford Washburn

When photographing a mountain, try to include some visual clue to indicate its size, in relation to the scene around it...

Man and nature

Mountains are often used as metaphors of mankind's desire to challenge and conquer adversity. Think of the phrase 'to move mountains' as an example. A good way to photograph mountains is to highlight their relationship with people. Your decision on how to compose a shot will dramatically alter the meaning of the photograph. Depending on where you place the human element in the frame, the mountain will become either the subject of the photo or an impressive backdrop.

People add a sense of scale to a mountain shot. If you take a shot of people in the distance, as little dots of colour dwarfed by the mountainous terrain, you'll emphasise the insignificance of man when compared with the dominance of nature. Alternatively, photographing mountaineers close up, against a snowy mountain backdrop, for instance, will underline the pioneering human spirit as man takes on nature.

Climb every mountain

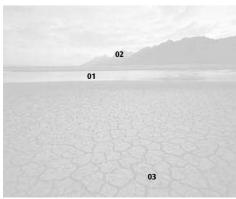
Another way to approach shooting a mountain is to think about the view from the top. Here you'll get a whole new visual and emotional perspective on the



world around you as the horizon stretches out in the distance. Because you're seeing further than usual, water droplets in the air will create an atmospheric haze. This haze adds layers of depth to your image, as the colour and contrast of distant mountains merge with the sky, while closer objects remain more saturated in colour.

Mountains are notorious for dramatic changes in weather, and this can lead to some exciting, atmospheric shots. However, if you do decide to embark on a mountain expedition, make sure that you take appropriate clothing (and a fully charged mobile phone), a sturdy pair of climbing boots and wrap up in warm, waterproof clothing.



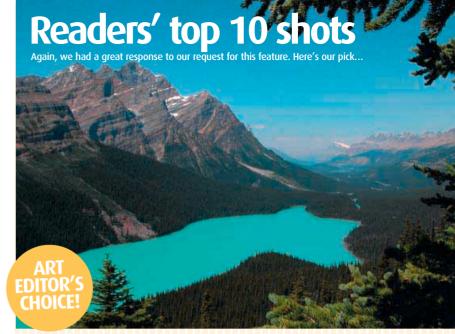




SHAPE AND FORM

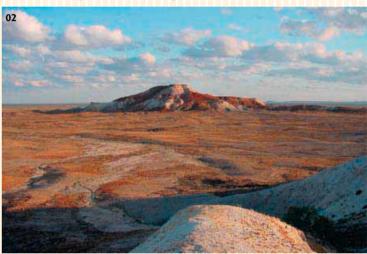
Where you find mountains, you'll often find lakes. This adds a whole extra dimension to your creative composition options.

O1 Shoot on a calm day to get a still surface on the lake. This gives you a natural mirror to capture a sense of symmetry from your mountain's profile. O2 The haze from water particles in the air causes the mountain to fade into the distance. O3 Compose a flat and distant shot to include some elements in the foreground. This will enhance the image's depth.



01 Canadian Rockies By Garry Parkin

Atmospheric haze enhances the image's sense of depth. The contrasting colour-saturated fir trees in the foreground create a pleasing frame to the scene.



02 Australian Outback By Michael Ward

The warm orange and brown hues of this shot make it look like a Martian landscape. It's a good example of the contrasting textures and colours that are available to mountain photographers.



The diagonal line of the icicles splits up the image in an interesting way. Lovely balanced composition in this one!

04 Bucegi Mountains, Romania By Nadia Gazaru

An excellent example of how to use weather to create an atmospheric shot.













05 Swiss Alps By Cameron Lees **06** Glen Coe By Doug Scobie **07** Mount Snowdon By Jason Canning **08** Mount Kilimanjaro By Scott Mawson **09** Canadian Rockies By Yvonne Baker **10** Lake District By Cliff Gibson

Q&A YOUR QUESTIONS ANSWERED

Welcome to the UK's complete help service. We'll tackle any problem – our unique HotLine Network means no problem is too hard. Email us today at hotline.dcm@futurenet.co.uk

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Our unique HotLine Network draws on the resources of over

16,000 dcmag.co.uk website members, our writers, contributors, plus industry experts. The result is the greatest problem-solving resource in any UK magazine.

HOTLINE NETWORK EXPERTS

Wherever you see the logo - in the magazine or on the web - the person next to it is a member of our HotLine Network. This means that they know what they're talking about and Digital Camera Magazine is pleased to recommend their technical expertise.

YOUR EXPERTS



HotLine Network

Aidan is a photographer who works for the Manchester Evening News www.dcmag.co.uk/aidanorourke



HotLine Network

Barry is a published photographer and Photoshop artist www.dcmag.co.uk/barryjackson



HotLine Network

Nick is an editor, writer and Photoshop expert www.dcmag.co.uk/nickmerritt

SKILL LEVELS





CONTACT US

We're here to help! Contact HotLine in one of the following ways: By email help.dcm@futurenet.co.uk By website www.dcmag.co.uk By letter HotLine, Digital Camera Magazine Future Publishing Ltd, 30 Monmouth St Bath, BA1 2BW, UK

THE BEST FORMAT FOR SAVING IMAGES



I followed a Photoshop Flements video workshop on removing red eye from an image. The original file downloaded from the

camera was 1.07MB, but the new PSD file with no red eye is 27.8MB! Am I doing something wrong?

I've bought a 1GB CompactFlash, to complement the 256MB xD card that was supplied with my camera, and this is supposed to give me about 80 shots in TIFF and 160 in RAW format. Which format should I use? I intend to store my images on CD-R or DVD-R/DVD+R, and to use album software to manage them.

Steve Ellis



If I saved all my photos as TIFF, RAW or Photoshop files, I'd have thousands of terabytes of data and a house full of CDs,

DVDs and assorted external storage devices. The simple advice is to save as JPEG max.

Although there is some loss of quality, it happens at pixel level and it shouldn't be visible to the naked eye.

The file will take up no more than a couple of megabytes, which is easier for storage and transfer

via email If the camera is set to output these files, then by all means save them back to TIFF or RAW format if you've not finished editing them, or if it's a very special or valuable photograph that

you'd like to store in the original format at the very highest quality. For most purposes, JPEG max should

the best storage medium in the past, but there's a problem with DVDs because of the variety of formats and lack of compatibility. They also take a long time to burn. If you need to save and access your files frequently, then a very large capacity external hard drive may be the best solution.

I have recommended CDs and DVDs as

A large capacity external hard drive is a good way to store your photos

Regulating light

Neutral density filters



7 I've bought a ND x4 filter for my Nikon D100 camera. Should I just put the filter on the lens and leave it to auto-program;

make a note of the settings the camera chooses (without the filter), add the filter and swap to manual; or leave the settings to the camera and increase +1EV? Please help me!

lames Macdonald



A neutral density filter reduces the overall brightness levels entering the camera. Rather like a pair of sunglasses, it reduces

glare, but once your eyes have adjusted to the lower intensity of light, the scene should appear the same as if the sun wasn't so bright.

Most digital cameras are able to regulate the

amount of light entering the camera, so why use a neutral density filter? Perhaps the sunlight or flash conditions are so bright that they're more than the camera can handle, even at the smallest aperture setting.

You might want to use a wider aperture to focus attention on the subject and throw the background out of focus, or a longer shutter speed to create motion blur. So, bearing this in mind, should you make adjustments to the camera when using the filter? No, because you would partially or fully cancel out the effect of the filter. All it is doing is reducing the amount of light entering the camera.



Leave the filter to do its job and the camera will do the rest...



When you're on the forums look out for HotLine expert, Jonathan Ryan. He's full of useful tips and tricks – and is often on hand to solve even the most demanding problems

PHOTO LIBRARY



I'm in the process of setting up a photo library, and I would love some recommendations on what software to use. I need something

that will give me enough space to add a fair bit of description about the images (place, subject and so on), because the photo library will be used by other people, as well as myself. I would really appreciate any feedback on different software and systems that I can use.

Sally Jelbert



If you're thinking of a shared system, then I think it's worth considering an online solution. Even if it's only to be accessed by

a small number of people for the moment, it's nice to

be able to view it from any computer at home or anywhere in the world.

For a long time I've wrestled with the problem of presenting my photos plus accompanying text online. I found there was no solution available that met my requirements. In the end, I decided to design my own, working with a database programmer. Combining my aims and objectives with his programming abilities, we came up with a system that enables me to store and present photographs and accompanying text. The material is arranged in categories and sub-categories.

Clicking on any category or sub-category will produce a set of results pages with medium-sized picture on the left, and text on the right. A larger size picture appears in a pop-up window. There's a data sheet with keyword and other info. There are also



To view Aidan's website in action go to www.aidan.co.uk

extensive search capabilities so you can view results pages on your chosen subject.



WHERE CAN I FIND OUT **MORE ABOUT... DEPTH OF FIELD**

There's expert advice on this hot topic overleaf, and you'll find a highly technical and very thorough explanation of the principles of depth of field on the website of US-resident Polish physicist and software developer Andrzei Wrotniak. Incidentally, his photo gallery contains excellent digitally captured images.

www.wrotniak.net/photo/dof

Forum technique

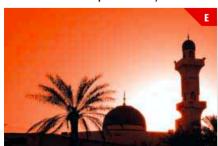


I've always wanted to capture good sunsets/sunrises, but I've been disappointed with the results that I've achieved so far.

In the winter, when the sun is setting as a dark, red ball to the naked eye, it always comes out wishy-washy pink in my shots. I've tried stopping down, but then everything just gets



An example of a difficult sunset: even though the sun is only just above the horizon, it's bright as the atmosphere is clear. Light is spilling out, causing poor definition of the disk of the sun, and lens flare. The exposure was 1/160 at f7.9.



If the colour doesn't look right, change it! Here, the original tone of this image was similar to C. A new layer was filled with orange and set to Overlay. Note that the rays of sun have caused a giant, halo effect that works well in this case.

murky. Have you got any tips that I can use? Gwynne Penny



Shooting sunsets can be difficult, mainly because of the high contrast between the sun and the surrounding

sky, and the difficulty in rendering colours correctly. The camera's metering system is set for



This was easy to photograph because the sun was low in the sky and thus reduced to a white disk by dust in the atmosphere. There is not a huge amount of contrast difference between the sun and the surrounding tones.



Two images can be combined. Here the sun has been placed above a tanker. Both shots were taken at almost the same time. The sun is weak and causes no exposure problems. Pink has been applied to the lower half of the picture.

average conditions. Sunsets often fool the system, and this can lead to overexpose, which means pale, washed-out colours and a sun that has burned out and spills into the surrounding areas of tone.

To avoid contrast problems, it's best to wait until the sunset is well advanced, and when the brightness of the sun is weak, with a more even



This image presents a number of problems. Even though the sun is close to the line of the mountains it's still very bright and we have lost the definition. Exposure was 1/260 sec at f8.9.



Here three pictures have been combined (two pictures of mosques and one shot of a water tower). Take any building/tower, place it on a sunset background, darken it and apply some orange to the original image.

spread of tones. When you come to shoot the sunset, the easiest and most effective way to arrive at the best exposure level is to try a variety of exposures. Look at the LCD screen and choose the best one – it may be better to underexpose rather than overexpose. Here are some sunsets taken in a land of spectacular sunsets, the United Arab Emirates.



Here we have reduced the exposure bias to -2. so that the exposure is 1/568 sec at f 11.1. The sun is now clearly defined, but we have lost the attractive orange colour in the sky. What can we do?



Q&A YOUR QUESTIONS ANSWERED

MasterClass

Clean images



🗾 I have an enormous number of slides and negatives and would like to scan them. The problem is many of them are in a bad state, covered in dust and scratches.

I've tried using Photoshop's Cloning tool, but with hundreds of tiny specks of dust it takes an eternity. Is there a software package that can help me?

Ian Dogherty



I know the feeling: I've been digging through my old slides, but many of them are covered in dust, scratches and fungal growths! They can be enhanced

by hand, spending a couple of hours 'spotting' out the dust marks with the Clone tool, or you can use a software fix. Photoshop Polaroid Dust and Scratch Removal can be downloaded for free from the Polaroid website. It's an amazing tool, but using it effectively can take some practice.

> Look at the masterclass opposite to find out how to remove dust and scratches from a variety of images.





Clean up a scan

[2] Dust and scratch removal

another, quicker way!

With Polaroid Dust and Scratch Removal, two hours meticulous work by a skilled Photoshop artist is done in a few seconds. A preview window appears showing how the image will look after the filter has done its

work. There are various controls (full details in the manual) but, for now, let's use the default settings.



DCMAG.CO.UK

dcmag.co.uk/

scans

[3] Controlling the filter

Hey presto! All but the largest dust marks and scratches have disappeared, but the filter has done some strange things to other elements of the image. It has removed some of the portholes and most of the masts and aerials. How can we control the

effect of the filter so that it only removes the things we want it to remove? There's a simple answer: layers!

[4] Using layers

Copy the cleaned up image into the clipboard, revert to the original and then paste the cleaned up file onto a laver above it. Setting the delete tool to a small brush, carefully delete through the cleaned up layer to reveal the portholes and masts on the original image underneath. Nearly all the



dust and scratch marks remain hidden. Then we merge all layers.

we've ended up with a near-perfect image which, just a few minutes before, was a dusty mess

With Photoshop Polaroid Dust and Scratch Removal,

Don't miss next issue...

PLUS As usual, our digital



[5] Live forever!

Finally go over the file to remove any larger marks that the filter has missed and make any remaining changes. The car ferry has long since been scrapped, but its image lives on spotlessly, thanks to Polaroid Dust and Scratches Removal!



You'll find Polaroid Dust and Scratch Removal at www.versiontracker.com Just enter 'Dust' in the search field.

DEPTH OF FIELD



How do f-numbers relate to the old film cameras? I think that most digital cameras have a range from f2 to around f8, whereas

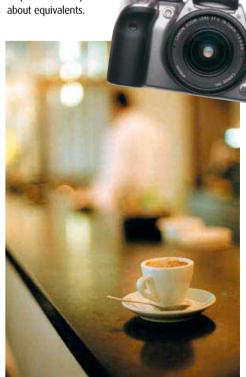
film cameras go up to around f22. I appreciate that f8 is probably equivalent to f22 on film, but why do I still read in digital photo books and magazines advice to take pictures at f22 for great depth of field? I don't know a digital camera that has those high numbers. Or am I wrong?

Brian Waugh



Digital SLR cameras (the ones with interchangeable lenses) do have those high f-numbers, but most compact digital

cameras only go up to f8. The f-number describes the amount of light passing through the lens. Think of it as being similar to a fraction: when the lens is stopped down to f8, only one eighth of the light is getting through similarly for f22 or for f2.8. The smaller the aperture, the greater the sharpness and depth of field. The larger the sensor or film size, the longer the focal length and the smaller the aperture has to be. Old-fashioned, large format 10 x 8-inch cameras (80 square inches) require f64 or f128 to get reasonable sharpness or depth of field. Present-day compact digital cameras, with their 'micro-format' sensor (smaller than one square inch), need only a moderately small aperture. The characteristics of the different formats are quite different, so you can't really talk



To find out more on f-numbers on Digital Camera Magazine Forum, and 'On The Forums'

DCMAG.CO.UK

dcmag.co.uk/

brighten

Eraser tool. I use this technique all the

time to give more 'oomph' (that is,

contrast), to images shot in dull light.

WINTER PICTURES

BRIGHTENING PHOTOS



7 Are there any techniques to brighten up colour photos taken in dull, winter weather? What about adding a few interesting clouds?

Shane Coggin



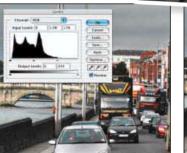
Many photographs taken in overcast weather can look disappointingly gloomy and dull when they are viewed on screen. You might

be tempted to bin them but, believe me, they can be improved. The reason why photos taken in cloudy

weather look unappealing to the eye is the low level of contrast (the difference between the brightest and the darkest parts of the scene). Digital cameras are configured to give good results with contrast levels typical for sunny weather. When the sun goes in, the level of contrast reduces, and this creates a less punchy image.

Although you can increase the contrast on your camera, this means that the mid-tones tend to burn out the whites. The answer is simple - make two copies of the picture on different layers, work on them separately, adjusting for the contrast in the mid-tones and in the sky, and then combine them using the





The solution is to lighten a second copy of the original file, but not as much. With two versions on layers one on top of the other, delete only whitest areas, revealing the more moderately lightened version underneath.



Merge the two layers and you have a version of the same image but with the tones much lighter and with more contrast.

ONTHEFORUMS

www.dcmag.co.uk/forum

IN RESPONSE TO BRIAN WAUGH'S QUESTION ON DEPTH OF FIELD



My understanding is that the greater depth of field arises from the fact that the CCD area is less than that of 35mm film.

Think that 35mm film is about 1.4 square inches, but that 3.3MP CCD is about 0.7 sq inches. The smaller the CCD, the bigger the depth of field for any particular f-stop. So, not all digital cameras are the same! It may be that the big 11MP jobs are getting nearer 35mm in practical terms.

Roll film cameras with bigger 'film' area still are a step in the other direction, and you then need f22 to behave like f8 at 35mm which, in turn, is like f4 in the Coolpix.

I note with interest, that my Minolta 7i actually has the focal length indicator on the zoom ring listed in 35mm 'equivalents'!

I agree with Jonathan that the basic camera manual has been 'handed down' from the rollfilm era. Mark Harvey



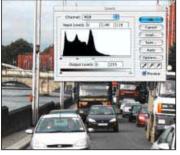
The first picture taken in cloudy weather on Dublin's Quays is dull. Shoot slightly underexposed to avoid burn out of white - a common problem on digital cameras.

X-RAY MACHINES

AND MICRODRIVES

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xD cards and airport X-ray devices. You replied

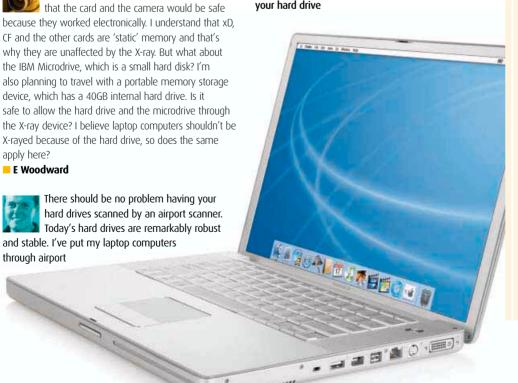


An easy way to lighten everything using Levels is to drag the right-hand slider to the left, turning the lightest grey to white and adjusting all other tones accordingly. It looks brighter, but

the white areas have burnt out.

scanners many times and have had no problems. Viruses, worms and badly designed software packages pose a much bigger threat to your portable storage devices than airport scanners!

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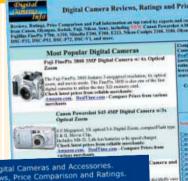
Recommended websites

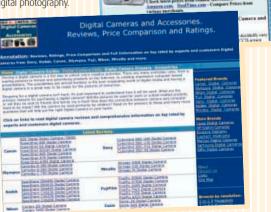
digit-all-cameras.com and digital-cameras-info.com

Two websites that seem to be produced by the same organisation based in Plano Texas, provide an interesting case study on what's good and what's not good in digital photography websites. Both sites are crammed with text (some of it common to both websites), giving ratings, reviews and price comparisons of digital cameras, plus background info on digital photography

Glossary explanations are original but camera descriptions are taken straight from press releases. And on the technical pages there are words but no diagrams.

Websites such as these demonstrate the superior layout, quality of information and general production values of my favourite digital photography resource website Phil Askey's legendary dpreview.com (featured previously in Hotline pages).





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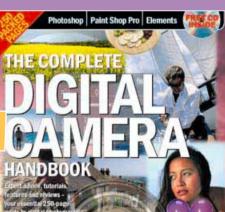
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Photo cinic

Send us your photos and our technical expert, Andrea Thompson, will tell you what she thinks! The best submission each month wins a full copy of Adobe Photoshop CS, so what are you waiting for?

THIS MONTH'S **CONTENDERS**

Phone booth from Richard Harrison

Liam from Nikko Liadopoulos

HOW TO SUBMIT YOUR PHOTOS

You can submit up to five photos each month, but you must include the following details with each entry:

- 1) The make and model of camera used, plus any lens attachments and filters.
- 2) The exposure settings used (EXIF data).
- 3) What prompted you to take the picture.
- 4) What image-editing effects and techniques you applied, and why. Save photos as high-res JPEGs, TIFFs or PSD files.

Email all text and images to: andrea.thompson@ futurenet.co.uk, including the subject heading 'Photo clinic'.

THE RULES

A cash alternative to the prizes is not available. We reserve the right to substitute prizes of equal or greater value. The editor's decision is final. By entering the competition, you agree to grant us an exclusive three-month license to publish your photographs in any manner we see fit, in any medium, in conjunction with the competition. After three months, this changes to a non-exclusive license on the same terms.



Submit your images and win a copy of Photoshop CS!

Yep, if we like your image, a free copy of Adobe's fantastic new version of Photoshop, worth a cool £605, could be yours!

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Each month the winner of our Star Photo award walks away with a full copy of Photoshop CS with Adobe ImageReady CS, the brand new version of

Adobe's image-editing suite. It's crammed with new exciting new tools and enhanced features for photographers and digital artists.

Our runner up will win a hardback copy of Tom Ang's superb Digital Photographer's Handbook – a lavishly illustrated, jargon-free guide to helping you get the most out of your digcam, computer, peripherals and image-editing software. So get those entries sent in on the double - there's nothing to lose!



Succeed or fail?

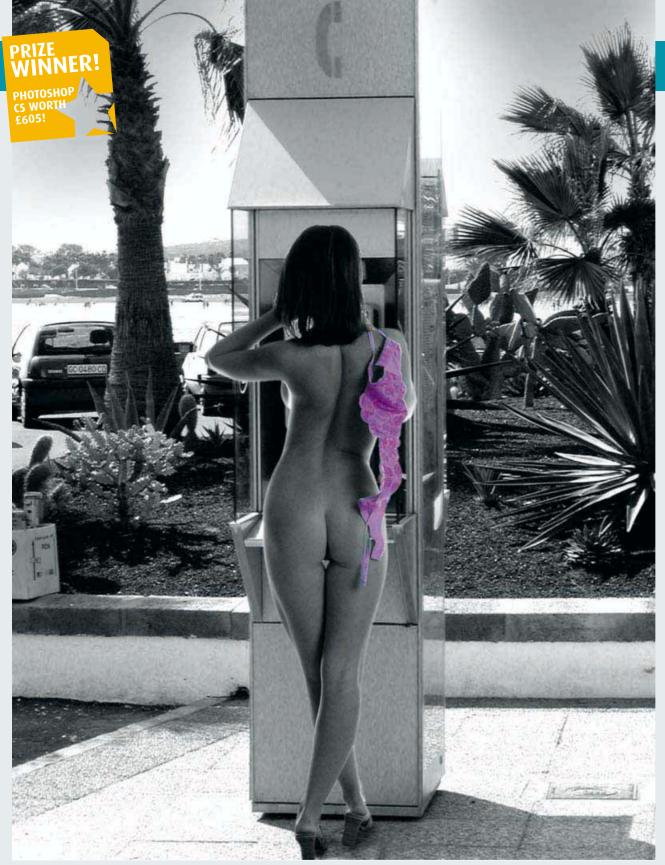
We want to know what you think of your fellow readers' photos!

Head over to www.dcmag.co.uk/ photoclinic now, take a gander at next month's Photo clinic entries and email your thoughts to

Liam

andrea.thompson@futurenet.co.uk. We'll print out the most entertaining, well-informed, scabrous or helpful comments in next issue!





Phone booth

Richard Harrison goes for an unlikely setting in this daring nude fantasy

Equipment used Olympus C-700 UZ and C-750 UZ digicams, Portaflash studio lighting, Photoshop 7

've never been a fan of glamour photography, but I have to admit that I immediately liked this composite, which combines a Lanzarote holiday snap with a nude studio shot. Granted, it is strongly evocative of those kitsch Athena posters so omnipresent in the 80s, but at the same time I think that the gritty, dramatically lit, black and white scene with its palm trees, incidental cars and rubbish, give it the alluring air of a film still. The shocking pink detail works well too, drawing the eye in away from the cluttered background and bringing the whole picture alive. In fact, I don't think the image would work anywhere near as well without this selective splash of colour - the composition simply isn't powerful enough to stand alone in monochrome.

What impresses me most is how well the studio lighting matches the angle and intensity of the natural

YOU'RE THE JURY!

"Looks like an advert for Pink Bras. If so, this is a powerful marketing image that any underwear company would be proud of." Jeremy Johnson

"It created from two images? It looks like the girl is actually there." Roy Oldershaw

YOUR VERDICT? SUCCEED

IN FOCUS

1 The sky has obviously been burnt in manually and is uneven and unrealistic 02 The studio lighting perfectly matches the angle and intensity of the natural light in the background, enabling the figure to be blended in convincingly 03 The splash of bright colour really makes the image



light in the background. Despite the odd telltale inconsistency, it enables the woman to blend in almost seamlessly, and has also created an attractive glowing outline around the figure. Richard used the Magic Wand and Polygonal Lasso tools to cut the model from a white studio backdrop, feathering around her hair in Quick Mask mode using a soft edged brush. On the whole, the cut-out is immaculate, but there are a few minor discrepancies around the hair and ankles, which I'd be inclined to re-do for the sake of realism. The areas where Richard has burnt into the underexposed sky could also do with extra attention - at the moment the sky looks fake because it doesn't spread across evenly behind the phone booth.

Technical aspects aside, my biggest concern is that this image treads a fine line between celebrating and worshipping the female form, and objectifying the subject in a degrading way. The juxtaposition of the nude within the urban landscape is quite perplexing in itself, and if you take the dangerous and illegal scenario here at face value it becomes downright alarming.

Ultimately, though, because the scenario is so laughably unreal, and therefore little more than a male fantasy, it manages to remain inoffensive. Moreover, the model is deliberately teasing the viewer - putting her in control. That said, if she wore a bikini and replaced the bra with a bikini top, Richard could have removed the illicit factor and added more realism - without losing the glamourous edge.

THE VERDICT

A cheeky, cleverly executed photomontage that demonstrates excellent use of selective colour

SHOOT YOUR PHOTOS



Liam

Nikko Liadopoulos attempts to recreate art house-type effects in Photoshop

Equipment used Canon Powershot G3, Centon flashgun, Photoshop 7

he prices charged by many professional photo studios for their more 'creative' portrait services are enough to make most punters turn green at the gills. Unable to swallow the exorbitant fees being charged by his local studio for a single 8 x 10 print, Nikko decided to try to recreate the ultra-modern, art house effects on offer at home. Using an old, second-hand, non-TTL flashgun with a white linen diffuser attached, he shot the subject (a friend's son) from above as he sat on the living room

floor by the front window. Nikko then cut the boy out using the Pen tool, and pasted him onto a new, white background. I love the imaginative viewpoint and the eye contact is terrific, but the overall composition is unbalanced and would benefit from tighter cropping around the face. The outline of the hair also looks unnaturally smooth - shooting against a similarly coloured, dark background instead of a white sheet has made it almost impossible to extract the individual hairs.

To give his shot that intended look Nikko then applied multiple screen and overlay blend modes, together with a touch of diffuse glow. While the outcome is certainly a modern-looking, high-impact portrait, at the same time it looks completely overprocessed, and all the warm, fleshy skin tones in the original have been eradicated. The red is so intense it looks as though his lips are bleeding, and although the porcelain, white skin zeroes you in on those

YOU'RE THE JURY!

Succeed or fail?

"The lad looks overexposed and washed out, his eyes are too dark and there's a weird red effect round his face." **Roy Oldershaw**

"Cute kid, good composition, why such high contrast? The totally white background looks contrived, too." James Bullard

YOUR VERDICT? FAIL

mesmerising, brown eyes, the poor chap looks absolutely freezing. He doesn't look too happy about the situation either, which is a real shame because I bet he's got a great smile.

Using blend modes with photographic portraits can produce some interesting and powerful effects, but it's important to use them cautiously, particularly if you're multiplying them together. For example, screening the same layer more than twice can bleach out skin tones altogether, and because overlay mode multiplies the existing colours, making multiple overlays quickly results in over-saturated, theatrical colours. My guess is that Nikko layered as many as eight blend modes here, and although the effect is too severe for a young child, it could be well suited to a teenager or an adult.

THE VERDICT

A valiant effort, but the effect looks overcooked and isn't particularly flattering

THE PANEL



Adam Evans
The illustrious editor of Digital Camera Magazine



Tom Ang
Prolific author of many digital camera books

YOUR PICTURES

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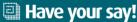
Damian Lowry

NAME OF PICTURE Hoverfly on sunflower





ADAM Fabulously sharp and detailed. Could perhaps have benefited from a slightly lower shooting position, to get more of the dark body against the yellow background.



NAME OF PICTURE Headstone

Email your comments to editor.dcm@futurenet.co.uk or join us on

Sandra Young

NAME OF PICTURE Sparkler



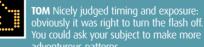


TOM Well framed and beautifully lit. It look like a scan from film: try reducing the green and clean up the dust-specks in the sky.



ADAM Brilliantly atmospheric. A bit less of that foreground grass in the bottom of the frame would have aided the composition.







ADAM You did well to get such a clear shot of the subject by the light of the sparkler but as Tom says, a more interesting pattern would have really made it something special.

Your verdict!

What did you think of last month's lead image? Here, we select the best of your opinions...

Tom said A well executed shot: beautifully lit and composed with excellent control of focus. But we see your sensor could do with some cleaning. Adam said Yes, a lovely shot with great use of light. Personally, I'd crop the sides a bit to get rid of the big distracting splodges on the left.

YOUR COMMENTS

Sarah Michel It's a nice shot but the spider is so small in the centre that it's almost impossible to see it! A bit less web and a bit more arachnid would be my advice! Glenn Tining The perspective on the spider's web is excellent and, with the light streaming through it, makes it feel really natural and simple. Well done, Mark



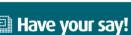


This is one of the first shots I have taken with my new Olympus

C4000z. I am delighted with the detail captured (the pollen on its legs and the fine hair detail), along with the colour rendition. The picture was taken in my garden using the super macro facility.







the forums at www.dcmag.co.uk/damianlowry

John Winstanley

Setting up a budget studio Part 3 If you're a budding still-life photographer, then studio lighting offers the ultimate control over every step of the process. Tim Daly guides you though the pitfalls of working at close range With studio still life shots, you need to take care to avoid lighting fall off and to create sufficient depth of field 01 Backlighting with softbox diffuser **02 White Perspex** 03 Benbo Tripod DIGITAL CAMERA MAGAZINE

nlike studio portraiture and large scale advertising shoots, studio still life is undertaken on a much smaller scale altogether. An essential part of the set is a table that's designed and built at such a height to allow the maximum flexibility over both the shooting and lighting positions. Most good still-life tables are supplied with a translucent white, perspex surface that curves upwards to form a gentle slope. This angle-free curve enables the photographer to create the impression of three dimensional space behind the still-life. The translucent surface also comes in useful for lighting underneath to remove shadows and unwanted reflections.

Better tables can also accommodate a half width paper background roll for shooting with specific colours. Although still-life tables are to be found in most professional studios, there are much cheaper alternatives for home use. For shooting side on, any lightweight table can double up as a still-life table, providing it's wide enough to accommodate a good-sized background paper or length of fabric.

Lighting and exposure

With studio still life, the important thing to remember is that you're working on a much smaller scale. For small sets, a single, narrow spotlight or a flash unit with a medium-sized reflector will provide ample illumination. And, if necessary, the light can be shaped with the addition of card reflectors or barn doors around the head.

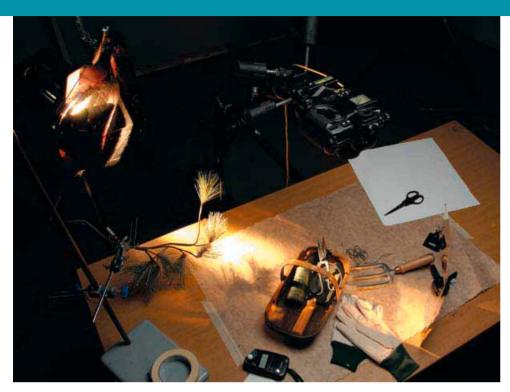
Generating enough depth of field at such a close range is the classic problem associated with studio still life and it can be a tricky situation for the novice photographer. Studio flash units are made and sold with different strengths, with higher power devices costing more than low power units.

In certain circumstances, not enough light intensity is created from a single burst of flash to match the desired aperture value which, in turn, does not create enough depth of field. In this situation, the flash unit can be fired several times in conjunction with an open shutter, and a cumulative light reading is taken until the required



Mini stands are essential for placing your light safely at a low angle, they can really help you to produce low, raking light effects





aperture value is reached. In these circumstances, no other ambient light can be present during the multi-flash exposure - the modelling light must be turned off and the shot taken in a dark room.

Lighting fall-off can also play a major part in your



close-up work, if you position your light too close. Falloff occurs when one side of your shot looks darker than the other due to uneven lighting. This can be minimised, however, by pulling your flash unit away until the imbalance becomes less noticeable.

With a small still-life subject, your entire set can fit onto a sheet of A3 paper, and you can try two popular shooting positions: side on, or from above. Most classic still-life shots of flowers in vases are taken side on, where the camera is supported by a standard tripod. Shooting from above, however, needs a different kind of camera support such as a studio stand or a multipurpose tripod (like one from the Benbo range), which can be altered to allow a downward shooting position.

Barn doors are used to control light and mask off a subject. They can be placed in a variety of positions, which makes them very adaptable



STILL-LIFE SETUP

01 To shoot from above you need a multipurpose tripod or a bespoke studio stand. 02 A clamp and stand is a great tool with which to elevate and position small objects 03 A single flash unit and reflector should suffice for a small set such as this

Creative tips

At a small scale, the direction and quality of light can make or break a still-life photograph. Small subjects can be better served with tiny mirrors, scraps of white card and opaque strips to block and direct the light. At their most inventive, still-life photographers can generate stunning images with throwaway lighting gadgets.

To avert the rather cold and colourless appearance of studio flash, many professional food photographers will make exposures using both colour-corrected flash and the warmer tungsten modelling light to make a more appetising result. Once the flash meter reading is taken, a slower than normal shutter speed is selected - for example, 1/15th - to allow the sensor to record the tungsten light as it flicks back on after the flash has been fired. Unlike a warm up filter, the intensity of the warmth can be varied by extending the shutter speed.



EXPERT TIP



TIM DALY'S LIGHTING TIPS

FLASH SYNC SPEED

Most cameras can be used with external flash units providing the right shutter speed is set. All professional cameras have a maximum flash synchronisation shutter speed, such as 1/60th or 1/125th. If faster shutter speeds are selected, then the resulting photographs display a characteristic, strip-like error. This is due to the moving shutter curtain only revealing a portion of the sensor or film at any one time when set to faster speeds.



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NEW SERIES

We start a new series of photo techniques



LIGHTING WITH TRANSLUCENT SCREENS



USING TISSUE PAPER A sheet of A3 white tissue paper is held just in front of a red rose which, in turn, is placed in front of a sheet of plain, blue paper. The flash, equipped with a softbox, is positioned to one side of the paper and shines at a raking 180 degree angle.



USING WET TISSUE PAPER Using the same flower subject, but replacing the blue background with a sheet of shiny gold paper, this variation was also covered with tissue paper. To create an interesting light effect, water was sprayed onto the tissue to make some parts more translucent.

Three different methods of diffusing an image using tissue paper and silk

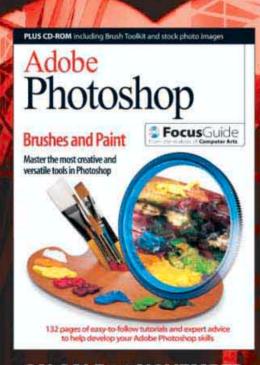


USING A SILK SCARF The final variation was made by removing the tissue paper and replacing it with a fine, silk scarf. The resulting image shows a very different kind of effect, but one where the pattern of the fabric combines with the flower, like a Photoshop layer effect.

Adobe Photoshop



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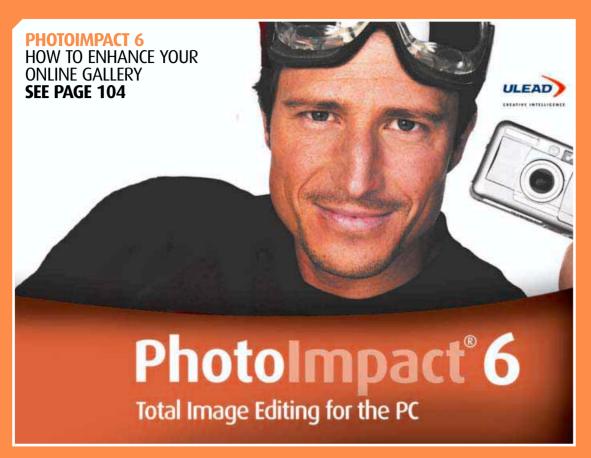
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PAGE 106

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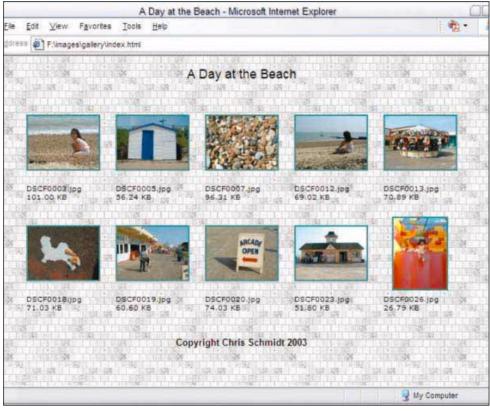
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Web graphics in PhotoImpact 6.0



Provide your own graphics to enhance your online gallery and make your pages that little bit more original...







ABOVE

The gallery we created last month provided functional results. The index page shown here allows access to larger images via the thumbnails but the design and layout are rather basic

Follow this month's tutorial and we're on the way to making the gallery a little more unique. The background image has been created and optimised through PhotoImpact, and manually embedded into the HTML

EXPERT TIP



CHRIS SCHMIDT'S PHOTOIMPACT TIPS

OPTIMISED GRAPHICS

When creating graphics intended for use on the web, you need to make a careful balance between quality and file size - this process is known as graphic optimisation. Although there are an increasing number of users accessing the internet through broadband connections, such as ADSL, the majority of people still view content through 56k modems. Optimising your graphics ensures such users will have access to your images without forcing them to wait excessive amounts of time.

ack in issue 13 of Digital Camera Magazine we gave away a free, fully-functional copy of Ulead PhotoImpact 6 editing software (check out our back issues on page 110, if you've missed an issue). Since then, we've been looking at the capabilities the software has to offer the digital photographer.

Tutorial recap

Our first tutorial looked at carrying out some routine image retouching that any digital snapper will need to consider. The second tutorial offered a method of creating an online gallery of work, without the need for HTML experience. Although the results created from this stage are functional (and a main index page contains thumbnails that lead through to larger images), the results are quite basic.

Fortunately, PhotoImpact provides the necessary tools to create web graphics, which can be included into the

page layout, in order to give a gallery a look and feel that makes it a little more unique. As the process of creating such graphics may be new to many photographers, we'll ease you in gently, creating a background using PhotoImpact's integrated Background Designer tool.

Get down and dirty

Since PhotoImpact is primarily an image editor with tendencies towards web-graphic creation, the process is quite straightforward, and we'll be able to optimise the final graphic to be as small in file size as possible, while retaining the maximum quality that's possible.

However, when we get round to embedding the image into our page, then we'll have to leave PhotoImpact and manually edit the code – but don't worry, as this only requires a small change that can be done simply through Notepad or any regular text editor. Do try to keep in mind, though, that the final graphic should be saved within the same folder as the HTML pages, otherwise the code will not be able to find the referenced file.

Improve your skills

Try not to panic when it comes to manually editing the code: the changes are basic and, if you've been following our tutorials, you should be feeling more confident by now. We've already learnt a number of techniques over this series so far - routine adjustments, creating an online gallery, designing a new background and embedding this into our pages using simple HTML.

Next month, we'll look at how to create a banner graphic to further enhance the site using a more direct approach to image editing using PhotoImpact. So hold tight as we develop your skills beyond anything you may have previously considered possible...



DESIGNING BACKGROUNDS

Creating web graphics may be a new area for the average photographer but. thank to PhotoImpact's integrated tools, the process becomes much easier



GETTING STARTED

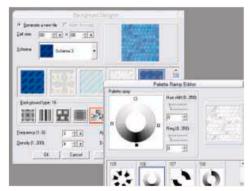
01

04

07

Launch PhotoImpact, head straight over to the Web menu and choose the Background

Designer option (or use the keyboard shortcut Shift+B) to get started. You don't need a base image open, as the wizard approach provides templates around which your new component will be based.



BACKGROUND HUE

The list of background types provides a range of options to further modify the appearance

of your final image and click on the Edit button to change the colour scheme, if required. We've used a subtle grey effect so as not to detract from the images contained within the actual pages.

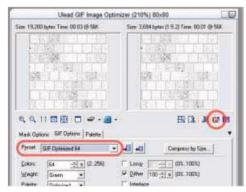
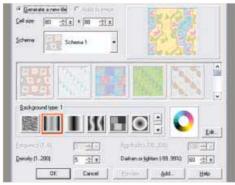


IMAGE OPTIMISATION

The tile will better suit the GIF format so choose this from the options available to the right of

the dialog box. As the number of colours involved should be fairly low use the Preset option to choose the GIF Optimised 64 option before clicking the Save As button.

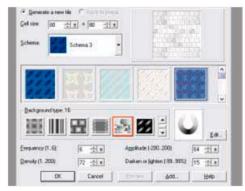


OPENING DIALOGUES

02

The first decision to make is the size of the image – as the background will tile in the final

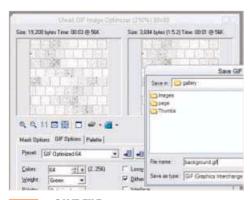
page we can leave this at 80 x 80 pixels to ensure reasonable results at a small file size. Any larger and the graphic might eat into download time; any smaller and the tile might be too obvious.



FINAL SETTINGS

The final options cover the sharpness of the pattern through Frequency and the number of

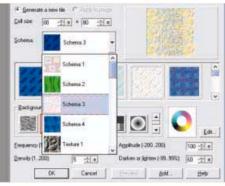
tiles used with Density. Amplitude controls the contrast between light and dark areas while the Darken or Lighten commands are fairly self-explanatory. Experiment to find your preferred balance.



SAVE FILE

Save the file as 'background.gif' within your existing gallery pages. You need to make sure

that this is included within the folder structure of your previously created gallery, otherwise it will be impossible to reference the file when the pages are finally uploaded.



CHOOSE YOUR SCHEMA 03

Next, you'll need to choose from one of the various generic themes available and also from

the secondary options available beneath this before continuing. Notice how the preview in the top right of the interface changes to give some idea of the final results.

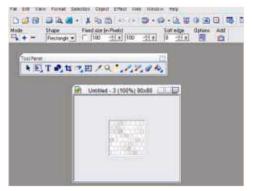


EXPERT TIP

CHRIS SCHMIDT'S PHOTOIMPACT TIPS

RELATIVE LOCATION

In the final step we've added the code to embed the image into the page with the assumption that the image is in the same folder as the referencing HTML page. This is fine for the index page but for subsequent pages you'll need to add '.../' (without the quotes) before the filename as the image is contained in the folder above in the file structure. This is necessary as the image is referenced by its location in relation to page. This is known as its relative location in contrast to entering the entire address such as www.mysite.com/graphics/backgro und.gif, for example, which would be considered an absolute location.



CREATE THE TILE

06

Once you're happy with the results, click OK and PhotoImpact will generate the image

which you can now save specifically for use on the web through the software optimisation controls. To access these, choose File #Save For Web #Entire Image to prompt the Image Optimiser tool.



HTM WHAT?

To embed the image into the pages, open each of the HTML pages within your gallery and

include the code, background='background.gif', within the <body> tag, as shown above. Save the file and view it in the browser to see the final results.

UPGRADE!

ULEAD PHOTOIMPACT XL

Total Image Editing for the PC. If you liked version 6, why not upgrade vour copy to Ulead PhotoImpact XL? It's £31.99 for the download version. and £38.78 for the boxed version. New features include:

- Three Bonus programs, including Ulead Photo Explorer 8, GIF Animator 5, and COOL 360 for panorama creation (total separate value: £90). ■ Create photo slideshows to burn onto CD and play in DVD players.
- Professional camera filters (lens distortion, zoom blur, star, diffuse glow) to apply lens techniques without expensive lenses.
- New ExpressFix tool to fix common photo problems, such as colour, unbalanced exposure and out-of-focus.
- Complete set of web tools for file size optimisation, JavaScript menus and slideshows, image mapping and slicing, plus more.

For full product information and upgrade details, please visit www.ulead.co.uk/pi/runme.htm



BANNERS How to create a banner image to add to the head of

our design



PictureMan 3.1 (PC)



Develop a new way of working with photos using this powerful image processing, editing and retouching tool

> ictureMan is an extremely quirky but rewarding image editor from Russia. It comes with all the usual filters, effects, and other tools you expect to find in a modern image editor, but also has full CMYK separation and a custom scripting language. PictureMan's drawing tools aren't much to shout about. If you're looking for subtle vector drawing tools, you've come to the wrong place, but if you just

want to apply effects and filters to your photos then PictureMan is ideal. There are 50 or so filters and effects available, and each can be applied to the entire image or to specific channels, which is especially useful when applying sharpening filters.

Once you've experimented with the filters and you've discovered a range of subtle effects that can improve most photos, you can define a script to automate them.

Scripting commands ensures you don't forget to apply any of your regulars, but it also enables you to apply them with the lightest of touches. Imagine, for instance, you've downloaded a hundred or so photos from your camera in one go, and you'd like to apply five or six filters to them with different channels and settings - you just wouldn't bother, would you? Script it once, however, and you can filter every picture with a single click.

KEY DETAILS PUBLISHER Stoik Imaging **PRODUCT STATUS** Full product CONTACT support@stoik.com **SERIAL NUMBER INFO** www.stoik.com/ registerpm31 SKILL LEVEL TIME TO COMPLETE **MINUTES**

GET TO GRIPS WITH PICTUREMAN

Set up PictureMan and explore its photo processing options



CUSTOMISE THE INTERFACE The first thing you'll want to do before you start using PictureMan is to gear its interface towards the kinds of operations you're likely to perform. Choose Configure Tool Bar from the Options menu, and add all the filters you expect you'll need to the righthand pane.



CALIBRATE YOUR MONITOR PictureMan comes with a built in monitor colour calibration utility. If you've never calibrated your display for print, select Monitor Gamma from the View menu, then adjust the sliders so that the central squares of colour disappear.



APPLY A FILTER Load an image into Picture Man, then choose your filter from the toolbar you created in step 1. Adjust the options as required (click the? if you want a brief description of the settings) then click Apply to filter the entire image.

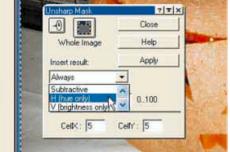


This oddly named filter enhances the quality of an image background by smoothing it while leaving sharp edges untouched. It's good at removing specks of noise from images, but it can also be used to dissolve JPEG artefacts from compressed photos

EXPERT TIP STEVEN RAYNES'

PICTURE MAN TIPS

GRAHAM FILTER



FILTER SELECTIVELY 04 If you want to filter channels independently, choose a channel from the Insert result list box, such as brightness or saturation only, then apply it. Press Ctrl + Z to undo if the effect is undesirable.



WRITE A SCRIPT Select Macros from the Special menu and click the Script Window button. Click the Write mode! menu, then perform the effects you want to automate. Click Save on the Script menu when you've finished.



RUN YOUR SCRIPT Open a new image and reopen the Script window. Select Open from the Script menu, choose your script, then click Run and wait while the processes are carried out.

FocusFixer 1.0 - full version



Bring out the best in your photographs with FocusFixer, a full Photoshop plug-in worth \$50...

t's all too common to pick up your photographs from developers and be dismaved at the out of focus results. While out of focus areas can be a deliberate artistic effect when you're aiming to produce depth of field, you may still

find that some details you would have preferred to keep have been lost. With the careful use of FocusFixer from FixerLabs, most of this detail can be recovered.

FocusFixer provides an effective way to restore images that are out of focus. The techniques it uses are processor-intensive yet they are simple to control, with only a single slider used to control its effects. While FocusFixer can't perform miracles with your images, it can certainly rescue many of those photographs that would otherwise have ended up in your bin.

USING FOCUSFIXER 1.0

See how you can rescue your blurred photos with this plug-in...



FUZZY PHOTO On this out-of-focus bird image, the Lasso tool is used to select the outline and feathering is set to six pixels. Now we can make use of the single slider in FocusFixer to sharpen the image.



PREVIEW THE EFFECTS A preview window enables you to see the effects of FocusFixer's slider effects, meaning you can experiment and find the ideal balance between sharpness and picture clarity.



ADJUST THE SHARPNESS With the slider all the way to the left, the bird will look too soft, while artifacts appear if it's too far to the right. Careful positioning enables us to get the level of sharpness required with ease.



USE THE ZOOM TOOL Simply position the slider where the focus is clearest to make the most of your images. There are also Zoom tools so you can get a close-up view to see how sharp your image is.



INSTALLING AND UPGRADING

To install this plug-in, simply click on the Install button on the CD interface and select your Photoshop Plua-ins folder. To unlock the full version of this software, you will need to register online at the following site: www.fixerlabs.com/ offers/3313353637.html.

The demo of FocusFixer 1.1 is also on this month's cover CD, and if you are impressed by the improvements it offers, you may want to upgrade to the latest version of the software. It costs \$45 and is available from: www.fixerlabs.com/offers/ 1825133973.html.

Making antique mounts

If you're restoring an old family photograph, then why not go the distance and include a traditional-style photographic mount? Tim Daly looks at an easy way to frame an image



WEB LINKS

PHOTOSHOP FRAMES BY SAGE

www.photoshop.brushes.btint ernet.co.uk/Abstract.shtml Scalable, decorative mounts and edges for your portraits.

MAKE YOUR OWN PHOTOSHOP FRAMES

www.insidegraphics.com/ photoshop/photoshop_frame tutorials.asp

Good ideas and plenty of tips on this useful site.

PHOTOSHOP EDGES AND FRAMES

www.insidegraphics.com/ photoshop/photoshop_frame_ tutorials.asp

Good online resources are available at the Graphics Software site.

ack in the days when family portraits were photographed and presented as a treasured object, elaborately designed mounts were used to frame the image. Yet, since the birth of the mass-market appeal of the medium in the 1850s, there's been a steady decline in the status of the photo print.

Now, with the advantage of digital technology, you can mix and merge your own images with historic frames, without using a mount cutter. Old photographic albums are a fantastic source of decorative frames - they can be easily scanned, cleaned and used in a montage with your own images, and printed out on the same sheet of paper.

Old mounts and album leaves are often in a poor condition, with the signs of age showing as tears and rips. However, these imperfections can be repaired easily with the Clone Stamp tool until they look as good as new.

For this project, a single album mount was used as a starting point, but all the original colours were replaced with a more flattering palette. Don't be put off by the colour or quality of an original think laterally about its potential.

Once it's scanned in, the mount can be manipulated and resized until it fits your exact requirements. Oval mounts, such as this example, are excellent for framing both contemporary and historical family images because they can be used to hid unwanted background detail. If your portrait image is floated underneath this layer, it can be nudged into place with the Move tool until it looks perfect.

Click on the mount layer and change its colour. Select the Colorize option in the Hue/Saturation dialog box, then move the Hue slider until your mount changes into a suitable colour



VINTAGE MOUNTS

Here we're creating a decorative leaf mount. A sheet of bright blue card is used – it can be seen through the oval hole and it helps at the cutting-out stage



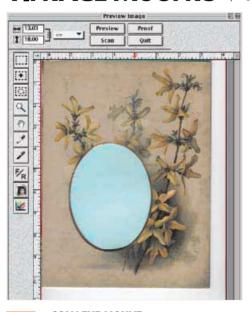
EXPERT TIP



TIM DALY'S PREPARATION TIPS

PIXEL DIMENSIONS

You need to prepare both mount and portrait image with the same resolution beforehand, or you'll be faced with two very different sized items. Although it's possible to scale a layer up or down in size, you'll get much sharper results if this is kept to a minimum. Always start off with more pixels than you really need, as discarding will lose less sharpness in the long run.



SCAN THE MOUNT Set the scanner controls to capture at 200dpi and in RGB mode. Even if the mount is mainly a single colour or tone, it's better to capture in the RGB

mode rather than Greyscale. After placing your mount on the scanner bed, place a sheet of brightly coloured paper or card on top of it, so that it shows through the aperture.



PREPARE THE MOUNT Rename your background layer by doubleclicking on the Layer icon and call it Layer 1. Select the Elliptical Lasso tool and draw an oval selection around the area you want to cut away. Use the Select * Transform Selection to fit it around your shape, then Edit #Cut to remove the unwanted bright, oval area.



INTRODUCE THE IMAGE

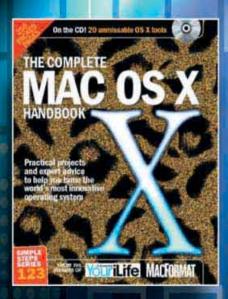
Prepare your original image. First make contrast and colour corrections, then go to Select #All,

followed by Edit #Copy. Click back into the mount image window and do an Edit *Paste command. Drag the portrait layer beneath the mount layer. Alter the size and shape by using the Transform controls.



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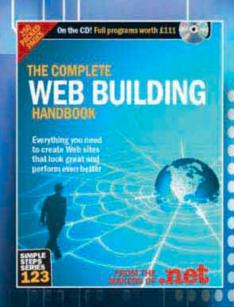


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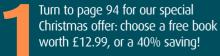
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To prevent or handle the unlikely event of receiving faulty or damaged goods, why not follow our checklist below - you'll reduce whatever slight chance there is of problems:

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- **USE A CREDIT CARD** If you are buying goods worth more than £100 in total, use a credit card. This is because in the event of any problems, you are entitled to claim against the credit card company as well as the seller (you won't get your money back twice but the company is there to claim against if the seller has gone bust.) You might also get extra insurance, so check with your credit firm.
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- **DON'T USE A DEBIT CARD** Many debit cards don't have the protection or insurance options afforded to credit cards, so avoid using one.



OLYMPUS E-1

The long-awaited E-1 isn't just another digital SLR...







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£200-£300

£200 | 3.2 megapixels | www.canon.co.uk



You can maybe get more for your £200 than this if you shop smartly, but the A300 still represents a good performance, quality and value

FULL REVIEW: issue 09

Sensor 3.2-megapixel, 1/2.7-inch 3.3MP CCD Lens Canon f3.6 fixed focal length lens Focus Auto, 5cm in macro mode Exposure modes Program AF Metering Evaluative, centre-weighted, spot Monitor 1.5-inch 67,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow, red-eve Video output No Movie recording 640 x 480 at 15fps with sound Other features Stitch Assist panoramic mode Image storage CompactFlash **Batteries** 2x AA Battery life 75/210 shots LCD monitor on/off AC adaptor No Weight 175q (without battery or card) Dimensions 110mm(w) x 58mm(h) x 36.6mm(d) Transfer USB Software ImageBrowser EX, PhotoRecord, PhotoStitch **05** Windows 98/Me, 2000 or XP. Mac OS9.0-9.2, OSX 10.1 or 10.2

Images Build Value

£280 | 3.2 megapixels

Optio

A rather ungainly design but it takes very good

Sensor 3.2-megapixel 1/2.7-inch 3.3MP CCD Lens

Pentax f2 6-5 0 3x zoom Focus Auto, manual, 10cm

in macro Exposure modes Programmed AE,, scene

weighted Monitor 1.5 inch AE compensation +/-2EV,

0.3EV increments Flash auto, on, off, red-eye Video

storage compact flash **Batteries** 2 x AA or Lithium CR

V3 AC adaptor no **Weight** 180g **Dimensions** 105(w)

ACDSee ACD Photostitcher Photos on CD 05 Windows

modes **Meterina** Multi-seament, spot, centre-

output PAL/NTSC Movie recording 320 x 240

without sound Other features 3D mode Image

x 63(h) x 41.5 (d) mm Transfer USB Software

98, Me, 2000, XP, Mac OS 8.6 or higher

pictures and incorporates more photograpl

features than you'd expect at this price

FULL REVIEW: issue 10

www.pentax.co.uk

PENTAX OPTIO 33L



HP PHOTOSMART 735

£200 | 3.2 megapixels www.hp.com



One of the best entry-level cameras on the market right now, It's solid, well made and produces really good-looking shots

FULL REVIEW: issue 10

Sensor 3.2-megapixel, 1/1.2.7-inch 3.3MP CCD Lens Pentax f2.6-5.0 3x zoom Focus auto, macro Exposure modes Program AE, Scene modes Metering Averaged, spot **AE compensation** +/-2 EV in 0.5EV steps Flash auto, red-eye, on, off, night flash Video output PAL/NTSC Movie recording with sound (duration depends on card capacity **Other features** Optional camera dock Image storage Internal, Secure Digital card Batteries 2xAA AC adaptor No Weight 235g (including batteries) Dimensions 105mm(w) x 46mm(h) x 71mm(d) Transfer USB interface Software HP Photo & Imaging software, HP Memories Disc OS Windows 98/Me, 2000 or XP. Mac OS9.1. OSX 10.1.5 or later

Images Build

PENTAX OPTIO 33WR

£300 | 3.2 megapixels

www.pentax.co.uk

KONICA REVIO KD-310Z

£250 | 3.2 megapixels www.konicaeurope.com



construction and build quality is out of the ordinary, and its startup time is breathtaking.FUL

FULL REVIEW: issue 10

Sensor 3.2-megapixel 1/1.8 inch 3.3MP CCD Lens Hexanon Focus auto. 10cm in macro Exposure modes Program AE Metering Centre-weighted, spot Monitor 1.5 inch AE compensation +/-1.5EV, 0.3EV increments **Flash** Auto, on, off, red-eye, night flash Video output No Movie recording 320 x 240 up to 15fps Other features Dual memory card formats Image storage SD card, Memory Stick Batteries Lithium-ion rechargeable, DR-LB4 Battery life 100/200 shots LCD monitor on/off AC adaptor Yes Weight 198g (without battery or card) Dimensions 94(w) x 56(h) x 29.5(d) mm Transfer USB Software Documentation only **OS** Windows 98, Me, 2000, XP, Mac OS 9, 0-9.2, OSX 10 4-10

Images Build

CASIO EXILUM EX S3

(22)

£300 | 3.2 megapixels www.casio.co.uk



The Optio 33WR hits the nail on the head in many, unexpected ways. The perfect family camera? Not a recognised market, but surely a crucial one...

FULL REVIEW: issue 15

ensor 3.2MP, 1/2.7-inch 3.3MP CCD Lens Pentax f2.8-3.9 2.8x zoom Focus Auto, manual, 1cm in macro mode Exposure modes Program AE, scene modes Metering Multi-segment, centre-weighted, spot Monitor 1.6-inch, 84,000 pixels AE compensation +/-2EV in 0.3EV step Flash Auto, on, off, red-eye Video output PAL or NTSC Movie recording 320 x 240 at 15fps with sound Other features Waterresistant design Image storage SD card Batteries 2x AA or 1x CR-V3 Battery life 125/540 shots (using alkalines/supplied disposable Lithium CR-V3 battery) AC adaptor No Weight 160g (without battery or card) Dimensions 81.5mm(w) x 76mm(h) x 30.5mm(d) Transfer USB Software ACDSee OS Win98/Me/2000/XP. Mac OS 8.6 or later



The Exilim's tiny dimensions bring compromises namely, price and versatility - but its charm and convenience are perfect for taking snapshots

FULL REVIEW: issue 09

ensor 3.2-megapixel, 1/1.8-inch 3.4MP CCD Lens f4.2 fixed focal length Focus Fixed focus 80cminfinity **Exposure modes** Program AE Metering Multi-pattern Monitor 2.0-inch 85,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eye Video output No Movie recording 320 x 240 with sound Other features Docking cradle, world clock and alarm Image storage 10MB internal, SD card slot Batteries Lithium-ion rechargeable, NP-20 Battery life 80 minutes/480 shots (continuous snapshots) AC adaptor Supplied Weight 61g (without battery or card) Dimensions 109mm(w) x 38.5mm(h) x 57mm(d) Transfer USB Software PhotoLoader, PhotoHands OS Windows 98/Me, 2000 or XP. Mac OS7.6.1-8.5, 8.6, 9, OSX 10.1 or 10.2

Images Build

OLYMPUS C-350Z

£250 | 3.2 megapixels www.olympus.co.uk



£250 is a rock-bottom price for a 3-megapixel camera, and while it feels a little plasticky, it's solid, easy to use and produces great images

FULL REVIEW: issue 10

Sensor 3.2 megapixel 1/25-inch 3.3MP CCD Lens Olympus f3 1-5.2 3x zoom Focus auto. 20cm macro **Exposure modes** auto, program, scene modes **Metering** evaluation and spot **Monitor** 1.8 inch 85,000 pixels AE compensation +/-2EV, 0.5EV steps Flash auto, on, off, slow, red-eye Video output PAL/NTSC Movie recording 320 x 240 at 15fps Other features 2 in 1, panoramic modes **Image storage** xD-picture card **Batteries** not quoted Weight 170g Dimensions 108mm (w) x 57 5mm (h) x 40mm (d) Transfer USB Software Olympus Camedia master 4.1 **05** 9.0 or higher,

Feature Images

Robust and reliable, with good image quality but if you're expecting class just because it's a Nikon,

£280 | 3.2 megapixels | www.nikon.co.uk

you'll be disappointed **FULL REVIEW: issue 10**

Sensor 3.2-megapixel, 1/1.27-inch 3.3MP CCD Lens 700m-Nikkor f2.8-4.9 3x 700m Focus auto. 4cm in macro mode Exposure modes Program AF, scene modes **Metering** multi-pattern **Monitor** 1.5-inch 110,000 pixels **AE compensation** +/-2EV in 0.3EV steps Flash auto, on, off, red-eve, Video output PAI /NTSC Movie recording 640 x 480 at 15fps Image storage Memory Stick Other features 4 Scene Assistance modes Batteries 2x AA or CR-V3 AC adaptor No Weight 150g (without battery or card) Dimensions 87.5mm(w) x 65mm(h) x 38mm(d) **Transfer** USB **Software** Nikon View Software OS Windows 98SE/Me, 2000 or XP. Mac OS9.0-9.2. OSX 10.1.3

Images



KODAK LS633

£300 | 3.1 megapixels www.kodak.co.uk



There's a lot to like in the LS633: the build quality. punchy images and LCD. It is flawed though, with awkward controls and pricey tag

FULL REVIEW: issue 09

Sensor 3.1-megapixel, 1/1.8-inch 3.3MP CCD Lens Schneider-Kreuznach f2.7-4.6 3x zoom Focus Auto. 13cm in macro mode **Exposure modes** Program AE Metering Multi-pattern, centre-weighted, centre spot Monitor 2 2-inch 114 000 pixels AF compensation +/-2FV in 0.5FV steps Flash Auto, on, off, red-eye Video output PAL or NTSC Movie recording 320 x 240 at 15fps Other features Optional camera dock Image storage 16MB internal, SD card slot Batteries Lithium-ion rechargeable Battery life 180 shots approx. AC adaptor Supplied Weight 210g (without battery or card) Dimensions 114mm(w) x 31mm(h) x 56mm(d) Transfer USB Software Kodak EasyShare software **OS** Windows 98/Me, 2000 or XP. Mac OS8.6 or 9.x. OSX 10.12 or later

Images Build

CANON POWERSHOT A70

£300 | 3.2 megapixels www.canon.co.uk



The PowerShot A70 is well made, well designed and easy to use. It's brimming with functions usually only found on far more expensive cameras

FULL REVIEW: issue 08

Sensor 3.2-megapixel, 1/2.7-inch 3.3MP CCD Lens f2.8-4.8 3x zoom Focus Auto, manual, 5cm (macro) Exposure modes Program AE, manual, Scene modes, aperture-priority, shutter-priority Metering Evaluative, centre-weighted, spot Monitor 1.5-inch 118,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eye Video output PAL/NTSC Movie recording 320 x 240 + sound Other features Stitch Assist panoramic mode **Image storage** CompactFlash **Batteries** 4x AAs **Battery life** 250/800 shots with LCD on/off AC adaptor No Weight 215g (no battery/card) Dimensions 101mm (w) x 64mm(h) x 31.5mm(d) Transfer USB Software ImageBrowser FX. PhotoRecord. PhotoStitch **QS** Windows 98/Me. 2000, XP, Mac OS9.0-9.2, OSX, 10.1 or 10.2

Features Build







£300 - £380

MINOLTA DIMAGE S414

£300 | 4 megapixels www.minolta.co.uk



A bit crude in places, the S414 takes good shots but isn't especially rapid. A camera you'd buy on price, rather than for its innate charm

FULL REVIEW: issue 13

Sensor 4-megapixel, 1/1.8-inch 4.1MP CCD Lens Minolta GT f3.0-3.6 4x 700m Focus Auto, manual. 10cm in macro mode Exposure modes Program AE aperture-priority, manual Metering Multi-segment, spot Monitor 1.8-inch, 122,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow flash, red-eye Video output PAL or NTSC Movie recording 320 x 240 at 15fps with sound Other features None Image storage CompactFlash Batteries 4x AAs Battery life 160 shots using 1850mAh NiMH cells, LCD on AC adaptor No Weight 335g **Dimension**s 113.5mm(w) x 64.5mm(h) x 58.5mm(d) Transfer USB Software DiMAGE Viewer **OS** Windows 98/Me, 2000 or XP. Mac OS9.0-9.2.2, OSX 10.1.3-10.1.5, OS 10.2.1-10.2.2

Features Images Ruild



CASIO EXILIM EX-Z3

£350 | 3.2 megapixels

www.casio.co.uk

KYOCERA FINECAM S5R

£300 | 5 megapixels www.kyocera.co.uk



You buy a 5MP camera for the best possible detail rendition but the Finecam doesn't really deliver, and its control system isn't the best, either

FULL REVIEW: issue 14

Sensor 5-megapixel, 1/1.8-inch 5.3MP CCD Lens Kyocera f2.8-4.8 3x zoom Focus Auto, 12cm in macro mode **Exposure modes** Program AE, aperture-priority Metering Evaluative, centre-weighted, spot Monitor 1.6-inch. 70.000 pixels AE compensation +/-2FV in 0.3EV steps Flash Auto, on, off, red-eye Video output PAL or NTSC Movie recording 640x 480 30fps with sound Other features In-camera image resizing and trimming Image storage SD card Batteries Lithiumion rechargeable BP1000S **AC adaptor** Yes **Weight** 180g **Dimensions** 92mm(w) x 57.5mm(h) x 33mm(d) Transfer USB Software Driver software only **OS** Windows 98/Me, 2000 or XP. Mac OS9.0-9.2, OSX 10 0-10 2

Features Images Ruild

£350 | 4 megapixels

www.minolta.co.uk



PANASONIC LUMIX DMC-F1

£350 | 3.2 megapixels www.panasonic.co.uk

MINOLTA DIMAGE F200

If you're looking for a stylish 4-megapixel camera There's a lot to admire in this camera: Its size huge LCD, Best Shot mode, speed, ease of use, that offers more than just point-and-shoot photography, the F200 is unbeatable and even its docking cradle/recharger...

FULL REVIEW: issue 08

Sensor 3.2-megapixel, 1/2.5-inch 3.3MP CCD Lens Pentax f2.6-4.8 3x zoom Focus Auto, manual, 6cm in macro mode Exposure modes Program AF. Scene modes **Meterina** Multi-pattern **Monitor** 2-inch 85,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eye Video output PAL or NTSC Movie recording 320 x 240 without sound Other features Cradle/camera dock Image storage 10MB internal, SD card slot Batteries Lithium-ion rechargeable, NP-20 Battery life 450 shots (continuous snapshots) AC adaptor Yes Weight 126g (without battery or card) Dimensions 87mm(w) x 57mm(h) x 22 9mm(d) Transfer USB Software Photo Loader, Photo Hands OS **OS**: Windows 98/Me, 2000 or XP. Mac OS9, 0-9,2, OSX 10,1



FULL REVIEW: issue 10

Sensor 4-megapixel, 1/1.8-inch 4.1MP CCD Lens Minolta GT f2 8-4 7 3x zoom Focus Auto 14 5cm in macro mode Exposure modes AE, Aperture-priority, Shutter-priority, Scene modes Metering DMultisegment, centre-weighted, spot Monitor 1.5-inch, 110,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eye, Video output PAI or NTSC Movie recording 320 x 240 at 15fps with sound Other features Automatic Digital Subject Program Selection Image storage SD Card Batteries 2x AA or CR-V3 Battery life 230/140 shots using CR-V3/NiMH cells AC adaptor No Weight 185g Dimensions 110mm(w)x52.5mm(h) x 32mm(d) Transfer USB Software DiMAGE Viewer **OS** Windows 98/Me, 2000, XP. Mac OS9.0-9.2.2. OSX 10.1.3. 10.2.1



SONY DSC-P72

£300 | 3.2 megapixels www.sony.co.uk



The Sony DSC-P72 is well made and well designed, and it does grow on you. And yet, for £300, we think you can do better

FULL REVIEW: issue 09

Sensor 3.2-megapixel, 1/2.7-inch 3.3MP CCD Lens Sony f2.8-5.6 3x zoom Focus Auto, manual, 10cm in macro mode **Exposure modes** Program AE, scene modes Metering Evaluative, spot Monitor 1.5-inch AE compensation +/-2FV in 0.3FV steps Flash Auto. on. off, slow, red-eye Video output PAL or NTSC Movie recording 640 x 480 with sound Other features Smart Zoom Image storage Memory Stick Batteries 2x AA Battery life 300/500 shots LCD monitor on/off AC adaptor Yes Weight 259q (including batteries and Memory Stick) Dimensions 101.3mm(w) x 57.7mm(h) x 32.6mm(d) Transfer USB Softw Image Mixer **OS** Windows 98/Me, 2000 or XP. Mac OS8.5.1-9.2. OSX 10.1 or 10.2

Features	81	FINAL SCORE
Images	83	9
Build	90	7.7
Value	80	



This handles surprisingly well given its small size and the accessibility of the EV compensation and bracketing controls are especially good

FULL REVIEW: issue 10

Sensor 3.2-megapixel 1/2.5-inch 3.3MP CCD Lens Leica f2 8-4.9 3x zoom **Focus** auto, 10cm in macro **Exposure modes** Program AE, scene modes Metering Multi-pattern, spot Monitor 1.5-inch 114,000 pixels AE compensation +/-2EV, 0.3EV increments Flash auto, on, off, slow red eve Movie recording 20 x 240 at 10fps Other features Voice memos in record and playback mode Image storage SD Batteries Lithium-ion, CGA-S001E Battery life 120/150 shots LCD AC adaptor Yes Weight 160g without battery or card **Dimensions** 104mm(w) x 50.9mm(h) x 32.1mm(d) Transfer USB Software Arcsoft Software Suite, SD viewer **OS** Windows 98/Me, 2000, XP



£330 | 3.2 megapixels | www.minolta.co.uk



The DiMage XT has a 'folded' light path to produce the slimmest digital camera vet. Results are good. operation is simple and the price tag modest.

FULL REVIEW: issue 10

Sensor 3.2-megapixel, 1/2.7-inch 3.3MP CCD Lens Minolta f2.8-3.6 3x zoom Focus Auto, 15cm to infinity Exposure modes Program AE Metering multisegment Monitor 1.5-inch AE compensation +/-2EV in 0.3EV steps **Flash** Auto, on, off, night flash, red-eye Video output PAL/NTSC Movie recording 320 x 240 at 15fps with sound **Other features** Non-extending lens Image storage Secure digital card Batteries Lithium-ion rechargeable, NP200 AC adaptor Yes Weight 120g (without battery or card) Dimensions 85.5mm(w) x 67mm(h) x 20mm(d) Transfer USB Software Minolta DiMAGE Viewer OS Windows 98/Me. 2000 or XP. Mac OS9.0-9.2.2. OSX 10 1 3 10 2 1

Features Images Ruild

CANON DIGITAL IXUS 400

£349 | 4 megapixels

www.canon.co.uk

Lots of manufacturers are producing beautifully crafted, miniature cameras and the Ixus 400 isn't the only all-metal, pocket-sized on the market

FULL REVIEW: issue 08

Sensor 4-megapixel, 1/1.8-inch 4.1MP CCD Lens f2.8-4.9 3x zoom **Focus** Auto, manual, 5cm in macro **Exposure modes** Program AE **Metering** Evaluative, centre-weighted, spot Monitor 1.5-inch 118,000 pixels **AE compensation** +/-2EV in 0.3EV steps **Flash** Auto, on, off, slow, red-eye Video output PAL/NTSC Movie recording 320 x 240 + sound Features Stitch Assist panoramic mode Image storage CompactFlash Batteries Lithium-ion rechargeable, NB-1LH Battery life 190/440 shots LCD monitor on/off AC adaptor Supplied Weight 185q (no battery/card) Dimensions 87mm(w) x 57mm(h) x 27.8mm(d) Transfer USB Software ACDSee, Photos on CD OS ImageBrowser EX, PhotoRecord, PhotoStitch OS Windows 98/Me. 2000 or XP. Mac OS9.0-9.2. OSX 10.1 or 10.2

Feature Images Build

es	8	30	ď	FINAL SC	ORE
;		89	ď	01	%
		88	¥	ΧI	
	67		ď		

PENTAX OPTIO S

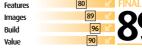
£350 | 3.2 megapixels www.pentax.co.uk



Other 3-megapixels with similar specs cost £100 less, but this model is so beautifully made, and so tiny, that many will be happy to pay the extra

FULL REVIEW: issue 08

Sensor 3.2-megapixel, 1/2.5-inch 3.3MP CCD Lens Pentax f2 6-4 8 3x zoom Focus Auto, manual 6cm in Super macro mode **Exposure modes** Program AE, 'scene' modes Metering Multi-pattern, centreweighted, spot Monitor 1.6-inch AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eve Video output PAL or NTSC Movie recording Yes Other features Panorama Assist and 3D modes Image storage 11MB internal, SD card slot Batteries Lithium-ion rechargeable, D-L18 Battery life 160 shots (LCD on) AC adaptor Supplied Weight 98q (without battery or card) Dimensions 83mm(w) x 52mm(h) x 20mm(d) Transfer USB Software ACDSee, Photos on CD OS Windows 98/Me, 2000, XP, Mac OS9.x. 10.1 or later



OLYMPUS MIU 400

£380 | 4 megapixels www.olympus.co.uk



In a word, design. It's small, smooth, and pocketable. It's robust, practical and easy to use What's more, it's image quality is very good indeed

FULL REVIEW: issue 13

Sensor 4-megapixel, 4.2MP CCD Lens Olympus f3.1-5.2 3x lens Focus Auto, 20cm in macro mode Exposure modes Program AE, scene modes Metering Digital ESP. (multi-pattern), spot Monitor 1.5-inch 134,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eye, slow Video output PAL or NTSC Movie recording 320 x 240 at 15fps Other features 2 in 1 and panoramic modes Image storage xD-Picture Card Batteries Lithium-ion rechargeable, LI-10B Battery life Not quoted AC adaptor Yes Weight 165g (without battery or card) Dimensions 99mm(w) x 56mm(h) x 33.5mm(d) Transfer USB Software Olympus Camedia Master 4.1 **05** Windows 98/Me, 2000 or XP. Mac OS9.0 or higher, OSX 10.1

Features Images Build Value

£400 - £600

KODAK DX6490

£400 | 4 megapixels www.kodak.co.uk



Kodak's good at designing inexpensive snapshot cameras for beginners. But when it comes to more advanced markets, it's another story

FULL REVIEW: issue 15

Sensor 4MP, 1/2.5-inch 4.1 MP CCD Lens Schneider-Kreuznach Variogon f2.8-3.7 10x zoom Focus Auto. 12cm in macro mode Exposure modes Program AE, ap-priority, shutter-priority, manual, scene Metering Multi-pattern, centre-weighted, spot Monitor 2.2inch. 153,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, red-eve Video output PAL or NTSC Movie recording 320 x 240 at 24fps with sound Other features EasyShare Image storage 16MB internal memory, SD card Batteries Lithium-ion rechargeable, KLIC-5001 Battery life 126-210 shots AC adaptor Yes Weight 310g (no battery/card) **Dimensions** 99.6mm(w) x 79.9mm(h) x 81.2mm(d) Transfer USB Software Kodak EasyShare OS Win98/Me/2000/XP. Mac OS 8.6 Or 9.x, OS X 10.1.2

Features	88	w.	FINAL SCORE
Images	87	ď	01%
Build	78	ď	ΔI
Value	70	w.	

FUIIFILM FINEPIX F700

£500 | 6 megapixels www.fuiifilm.co.uk



The extended dynamic range isn't this camera's only merit. It's also an extremely well-made, well-designed camera that's a pleasure to use

FULL REVIEW: issue 13

Sensor 6-megapixel. 1/1,7-inch 6,2MP SuperCCD SR Lens Super EBC Fujinon f2.8 3x zoom Focus Auto, 9cm in macro mode **Exposure modes** Program AE, aperture-priority, shutter priority, manual, scene modes Metering Multi-pattern, average, spot Monitor 1.8-inch. 134,000 pixels **AE compensation** +/-2EV in 0.3EV steps Flash Auto, on, off, slow flash, red-eye Video output PAL or NTSC Movie recording 640×480 at 30 fps with sound Image storage xD-Picture Card Batteries Lithium ion rechargeable (NP 40) Rattery life 135/270 shots LCD on/off AC adaptor Yes Weight 170g (without battery or card) Dimensions 108mm(w) x 54mm(h) x 28mm(d) Transfer USB Software FinePix Viewer, ImageMixer VCD. RAW File Converter LE OS Windows 98/Me, 2000 or XP, Mac \$8.6-9.0, OSX



HP PHOTOSMART 935

£400 | 5.1 megapixels www.hp.com/uk/create



A plain and simple camera that does exactly what it sets out to but it'll need discounting to make it more attractive that its premium-brand rivals

FULL REVIEW: issue 12

Sensor 5.1MP, 1/1.8-inch 5.3MP CCD Lens Pentax f2.6-4.8 3x zoom Focus Auto. 14cm in macro mode Exposure modes Program AE, aperture-priority Metering Centre-weighted, spot Monitor 1.6-inch, 85,000 pixels AE compensation +/-3EV in 0.5EV steps Flash Auto, on, off, slow flash, red-eye Video output Via optional docking station Movie recording with sound (duration depends on card capacity) Other features Optional docking station Image storage SD card Batteries 2x AA AC adaptor No Weight 230g (without battery or card) Dimensions 97mm(w) x 45mm(h) x 67mm(d) Transfer USB Software HP Photo & Imaging software, Memories Disc **05** Windows 98/Me, 2000 or XP. Mac OS9.1, OSX

Features	72	FINAL SCORE
Images	87	70 %
Build	78	<i>1</i> 8
Value	75	

SONY MAVICA CD-500

£550 | 5 megapixels www.sony.co.uk



Price, performance and photographic control are all surprisingly competitive. The only drawback to its unique storage system...

FULL REVIEW: issue 15

Sensor 5MP, 1/1.8-inch 5.3MP CCD Lens Carl Zeiss Vario Sonnar f2.0-2.5 3x zoom Focus Auto, manual, 4cm in macro mode Exposure modes Program AE, aperture-priority, shutter-priority, manual, and scene modes Metering Multi-pattern, centre-weighted, spot Monitor: 2.5-inch, 123,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow, redeye Video output PAL or NTSC Movie recording 640 x 480 with sound **Image storage** 8cm CD-R/CD-RW Ratteries Lithium-ion rechargeable NP-FM50 Rattery life 220 shots/110 minutes AC adaptor Yes Weight 606g (inc battery and disc) Dimensions 138.5mm(w) x 95.7mm(h) x 103.1mm(d) Transfer USB Software Pixela ImageMixer OS Win98/Me/2000/XP. Mac OS 8518690-92

eatures	90	ď	FINAL SCORE
mages	89	ď	00%
Build	88	ď	XX
/alue	83	H.	

FUIIFILM FINEPIX S5000

£430 | 3 megapixels www.fujifilm.co.uk



Fuji's ultra-zoom is compact and clever, although not perfect. We've yet to be convinced of the turised HR CCD, but the differences are subtle

FULL REVIEW: issue 14

Sensor 6MP 1/1.7-inch 6.2MP SuperCCD Lens Fujinon f2.8-3.1 10x 700m Focus Auto, manual. 10cm in macro mode **Exposure modes** Program AE, aperture-priority, shutter-priority, manual, scene modes Metering Multi-pattern (64-segment). average, spot Monitor 1.5-inch, 114,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow flash, red-eye Video output PAL or NTSC Movie recording 320 x 240 at 30fps with sound Other features Lens hood/adaptor included Image storage xD Picture Card Batteries 4x AA AC adaptor No Weight 337g Dimensions 112.7mm(w) x 81.1mm(h) x 79.3mm(d) Transfer USB Software FinePix Viewer, ImageMixer VCD, RAW File OS Win98/Me/2000/XP. Mac OS8.6-9.2.2, OSX 10.0.4-10.2.4

Features	95	FINAL SCORE
Images	88	^ %
Build	96	75
Value	91	

SONY DSC-V1

£550 | 5 megapixels www.sony.co.uk



A good camera but its design and handling make it more fiddly to use than it should be. Its rivals are just too good in comparison

FULL REVIEW: issue 12

ensor 5-megapixel, 1/1.8-inch 5.3MP CCD Lens Carl 7eiss Vario Sonnar f2 8-4 0 4x 700m Focus Auto manual, 10cm in macro mode Exposure modes Program AE, aperture-priority, shutter-priority, manual, scene modes **Metering** Multi-pattern, spot Monitor 1.5-inch, 123,000 pixels AE compensation +/-2EV in 0.3FV steps Flash Auto, on, off, slow flash, red-eve Video output PAL or NTSC Movie recording 640 x 480 at 16fps with sound **Other features** NightFraming/ NightShot infrared Image storage Memory Stick Batteries Lithium-ion rechargeable, NP-FC11 AC adaptor Yes Weight 298g (inc. battery and card) Dimensions 99mm(w) x 65.2mm(h) x 56.9mm(d) Transfer USB Software Pixela Image Mixer OS Windows 98/Me, 2000, XP. Mac OS 8.5.1, 9.0, 9.1, 9.2

Features	90	FINAL SCORE
Images	89	O / %
Build	83	XD
Value	80	<u> </u>

OLYMPUS C-750UZ

£450 | 4 megapixels www.olvmpus.co.uk



good results, the Olympus's only real failing is in minor details like sluggish zooming

FULL REVIEW: issue 14

Sensor 4-megapixel, 1/2.5-inch 4.2MP CCD Lens Olympus f2.8-3.7 10x zoom Focus Auto, manual, 7cm in macro mode. 3cm in Super Macro mode Exposure modes Program AE, aperture-priority, shutter priority, manual, scene modes Metering Digital ESP, multipattern (8 segments), spot Monitor 1.5-inch, 114,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow, red-eye Video output PAL or NTSC. Movie recording 320 x 240 at 15fps with sound Other features Super Macro mode Image storage xD Picture card Batteries 4x AA (NiMH cells/charger supplied) or 2x CR-V3 AC adaptor Yes Weight 305q Dimensions 107.5mm(w) x 66mm(h) x 68mm(d) Transfer USB Software Camedia Master 4.1 **05** Win98/Me, 2000 or XP, Mac OS9.0, OSX 10.1

Features	95 FINAL SCORE
Images	89 🗹 🖳
Build	88
Value	89 🛒

PENTAX OPTIO 550

f550 | 5 meganixels | www.pentax.co.uk



Good value in terms of features and its 5x optical zoom is tempting but its design and handling don't match up to that of its closest rivals

FULL REVIEW: issue 10

Sensor 5-megapixel 1/1.8-inch 5.3MP CCD Lens Pentax f2 8-4 6 5x zoom Focus auto, manual, 15cm macro, 2cm super macro mode Exposure modes Programmed AE, aperture priority, shutter priority, manual, Scene modes Metering Multi-segment, centre-weighted, spot Monitor 1.5-inch AE compensation +/-2FV, 0.3FV steps Flash auto, on, off. red-eye Video output PAL/NTSC Movie recording 320 x 420 with sound **Other features** Panoramic and 3D modes Image storage SD card slot Batteries Lithium-ion rechargeable D-L17 AC adaptor Yes Weight 205g (without battery and card) Dimensions 100mm(w) x 59mm(h) x 39.5mm(d) Transfer USB Software ACDSee, ACD Photostitcher, Photos on CD **OS** Windows 98, Me, 2000, XP, Mac OS 8.6 or later



SONY CYBERSHOT DSC-P10

£450 | 5 megapixels www.sonv.co.uk



It's neat and nice to use, but it's not exceptiona You can get the same performance and ranabilities elsewhere for less money

FULL REVIEW: issue 12

Sensor 5-megapixel, 1/1.8-inch 5.3MP CCD Lens f2.8-5.6 3x zoom Focus Auto, manual, 10cm in macro mode Exposure modes Program AE, Scene modes Metering Multi-pattern, spot Monitor 1.5-inch. 123,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow flash, red-eye Video output PAL or NTSC Movie recording 640 x 480 at 16fps with audio Other features Optional 3:2 aspect ratio Image storage Memory Stick Batteries Lithiumion rechargeable, NP-FC11 AC adaptor Yes Weight 206g (including battery or card) Dimensions 108mm(w) x 51.5mm(h) x 35.8mm(d) Transfer USB Software Pixela Image Mixer OS Windows 98/Me. 2000 or XP. Mac OS 8.5.1, 8.6, 9.0, 9.1, 9.2

Features	78	ď	FINAL SCORE
Images	80	H.	70 %
Build	84	H.	19
Value	75	w.	,

NIKON COOLPIX 5400

£600 | 5.1 megapixels www.nikon.co.uk



A brilliant design and build, although the Coolpix 5400 is let down a little by its inconsistent image quality - it's just not as sharp as some of its rivals

FULL REVIEW: issue 12

Sensor 5.1-megapixel, 1/1.8-inch 5.3MP CCD Lens f2 8-4 6 4x zoom Focus Auto manual 1cm macro Exposure modes Program AE, shutter-priority, scene modes, manual, aperture priority Metering Matrix, centre-weighted, spot, AF spot Monitor 1.5-inch, AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, night flash, second-curtain slow sync, red-eye Video output PAL or NTSC Movie recording 640 x 480 at 15fps with sound **Other features** Flip-out swivelling LCD Image storage CompactFlash $\textbf{Batteries} \ \, \textbf{Lithium-ion} \ \, \textbf{rechargeable}, \, \textbf{EN-EL1} \ \, \textbf{AC}$ adaptor Yes Weight 320g (without battery or card) **Dimensions** 108mm(w) x 73mm(h) x 69mm(d) Transfer USB Software Nikon View, Elements 2 OS Win98SE, Me, 2000, XP. Mac OS9.0-9.2, OSX 10.1.2

Features	96	FINAL SCORE
Images	78	1 %
Build	98	91
Value	93 🛒	



Canon Digital Ixus i

£300 £236

4.0 Megapixels 5.7x Digital Zoom Weight: 100g 32 MB SD card included





Pentax Optio 555 £467 £398



Sony Cyber-shot DSC-P92 £320 £244



Casio Exilim EX-Z4 £367 £308

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Pixmania is a FotoVista Company

£650-£1,900

£650 | 5 megapixels | www.olympus.co.uk



A classic Olympus shape with excellent finish, layout and design coupled with first rate results make the C-5050 the best in its class

FULL REVIEW: issue 06

Sensor 5.3-megapixel 1/1.8-inch CCD Lens Olympus f1.8-2.6 3x optical Focus auto, manual, macro, supermacro Exposure modes Programmed AE, aperture priority, shutter priority, manual, scene modes Metering digital ESP, spot, multi-spot Monitor 1.8-inch 114,000 pixels **AE compensation** +2/-2EV, 0.3EV increments Flash Auto, on, off, slow, slow 2nd curtain, red-eve Video output PAL/NTSC Movie recording 320 x 240 at 15fps Other features multiple memory card slots Image storage x-D Picture Card, SmartMedia, CompactFlash Batteries 4x AA AC adaptor supplied Weight 380g Dimensions 115mm(w) x 80mm(h) x 70mm(d) Transfer USB Software Olympus CAMEDIA Master OS Windows 98, Me. 2000, XP, Mac OS 8.6-9.2.2, OS X 10.0.4 or higher

Features	93 FINAL SCORE
Images	96 7 6%
Build	98
Value	95

CANON POWERSHOT G5

£680 | 5 megapixels www.canon.co.uk



The image quality of the PowerShot G5 is fine and there's a good range of features, but the build and ergonomics are rather disappointing

FULL REVIEW: issue 12

Sensor 5 megapixels, 1/1.8-inch 5.3MP CCD Lens Canon f2.8-4.9 3x zoom **Focus** Auto, manual, 5cm macro Exposure modes Program AE, scene modes, aperture priority, shutter priority, manual Metering Evaluative, centre-weighted, average, spot Monitor 1.8-inch **AE compensation** +/-2EV in 0.3EV steps Flash Auto, on, off, slow flash, red-eye Video output PAL/NTSC Movie recording 320 x 240 at 15 sec with sound Other features Fold-out LCD Image storage CompactFlash **Batteries** Lithium-ion rechargeable, BP-511 AC adaptor Yes Weight 410g Dimensions 121mm(w) x 69.9mm(h) x 73.9mm(d) **Transfer** USB Software FileViewer, PhotoStudio, RemoteCapture, PhotoRecord 700mBrowser EX PhotoStitch 05 Win98 Me, 2000, XP, Mac OS9.0-9.2, OSX 10.1, 10.2

Features	95 🖆 FINAL SCORE
Images	93 🗹 🔘 🌈 %
Build	82 🖹 🦝
Value	75

CONTAX TVS DIGITAL

£800 | 5 megapixels www.contaxcameras.co.uk



It's a prestigious brand but you can get some well made, well designed compacts for a lot less than this. Good but not good enough...

FULL REVIEW: issue 10

Sensor 5-megapixel, 1/1.8-inch, 5.3 MP CCD Lens Carl Zeiss Vario Sonnar T* f2.8-4.9 3x zoom Focus auto, manual 15cm in macro mode Exposure modes Program AE, aperture priority, **Metering** multi-pattern, centre-weighted, spot Monitor 1.8 inch, 85,000 pixels AE compensation +2/-2EV, 0.3EV increments Flash Auto, on, off, night portrait, red eye **Video output** PAL/NTSC Movie recording 320 x 240 with sound Other features voice annotations and image resizing Image storage SD card Batteries Lithium-ion rechargeable AC adaptor Yes Weight 210g (without battery or card) Dimensions 112mm(w) x 66mm(h) x 33mm(d) Transfer USB Software Imaging software **OS** Windows 98/Me, 2000, XP, 2000 or XP. Mac OS

Features	81 FINAL SCORE
Images	78 🕝 🤭
Build	90 🐔
Value	52

MINOLTA DIMAGE A1

£850 | 5 megapixels www.minolta.co.uk



Some important new features, but a revamped favourite rather than an all-new camera. The A1 is a well-judged refinement of a classic design

FULL REVIEW: issue 14

Sensor 5-megapixel, 2/3-inch 5.3MP CCD Lens Minolta GT f2.8-3.5 7x zoom Focus Auto, manual, 13cm in macro mode Exposure modes Program AF. aperture-priority, shutter priority, manual, and scene modes **Metering** Multi-segment (300), centreweighted, spot Monitor 1.8-inch, 118,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, slow, red-eve Video output PAL or NTSC Movie recording 320 x 240 at 24fps with sound Other features Anti-shake system Image storage CompactFlash Batteries Lithium-ion rechargeable NP-400 AC adaptor Yes Weight 560g Dimensions 117mm(w) x 85mm(h) x 113.5mm(d) **Transfer** USB Software DiMAGE Viewer OS Windows 98/Me. 2000 or XP. Mac OS9.09.2.2, OSX 10.1.3-10.1.5, 10.2.1-10.2.5

Features	97 🖹 FINAL SCORE
Images	88 1 00%
Build	93
Value	82

CANON EOS 300D

£900 | 6.3 megapixels www.canon.co.uk



Other digital SLRs have pushed the price/ performance envelope keenly enough. The EOS 300D, though, busts right through it

FULL REVIEW: issue 14

Sensor 6.3-megapixel, 22.7mm x 15.1mm 6.5MP CMOS chip Lens Tested with Canon EFS 18.55mm f3.5-5.6 Focus auto, manual, min 28mm Exposure modes Program AE, shutter priority, aperture priority. manual, scene modes Metering Multi-pattern (35zone), centre-weighted, partial Monitor 1.8-inch, 118,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, on, off, SlowSync, red-eve Video output PAL or NTSC Movie recording n/a Other features DEP depth of field mode Image storage CompactFlash Batteries Lithium-ion rechargable BP-511 AC adaptor Yes Weight 560g body only Dimensions 142mm(w) x 99mm(h) x 72.4mm(d) Transfer USB Software Canon ZoomBrowser EX image thumbnail browser, Photoshop Elements 2

Features	93	FINAL SCORE
Images	96	1 %
Build	88	94
Value	98	

CANON EOS 10D

£1,400 | 6.3 megapixels



The EOS 10D is well made, fast, ergonomically sound and produces high-quality images. It's the obvious digital choice for EOS camera owners

FULL REVIEW: issue 09

Sensor 6.3-megapixel, 22.7mm x 15.1mm CMOS chip Lens No Focus Dependent on lens Exposure modes Program AE, aperture-priority, shutter-priority, manual, Scene Metering 35-zone evaluative, centre-weighted, spot Monitor 1.8" 118,000 pixels AE compensation +/-2EV in 0.3EV steps Flash Auto, slow, red-eye Video output Pal Other features 3fps for 9 shots Image storage CompactFlash/MicroDrive Batteries Lithiumion rechargeable, BP-511 Battery life 650 shots AC adaptor Yes Weight 790g Dimensions 149 5mm(w) x 106.5mm(h) x 75mm(d) Transfer USB Software FileViewer, RemoteCapture, ZoomBrowser EX, PhotoRecord, PhotoStitch, Photoshop 5.0LE OS Win 98/Me, 2000, XP. Mac OS8.6-9.2, OSX 10.1, 10.2

Features	98 FINAL SCORE	Featu
Images	99 6 7 %	Imag
Build	93 2 94	Build
Value	95 🛣	Value

PENTAX *IST D

£1,400 | 6.1 megapixels www.pentax.co.uk



The Pentax "ist D isn't just a terrific camera to use. it produces very good results, too. At this price, only the Fuii FinePix S2 Pro is better - but only just

FULL REVIEW: issue 09

Sensor 6.1-megapixel, 23.7mm x 15.6mm 6.31MP CCD Lens Tested with Pentax 18-35mm f4-5.6 Focus Dependent on lens Exposure modes Program AE. shutter-priority, aperture-priority, hyper-manual' Metering Matrix, centre-weighted, spot Monitor 1.8-inch, 118,000 pixels AE compensation +/-3EV in 0.5 (default) or 0.3EV steps Flash Auto, on, off, slow sync, red-eye Video output PAL/NTSC Movie recording No Other features Custom camera functions Image storage Compact Flash Batteries 4x AA or 2x CRV-3 Battery life 450 shots (no flash, NiMH cells) AC adaptor Yes Weight 550g (without batteries or memory card) Dimensions 129mm(w) x 94.5mm(h) x 60mm(d) Transfer USB Software Pentax Photo Lab, Pentax Photo Browsers, RAW file converter Windows 98/Me, 2000 or XP, Mac OS 8.6 or later

tures	96 FINAL SCORE
iges	94 1 6 %
ld	99
Je	91

OLYMPUS E-1

£1,820 | 5 megapixels www.olympus.co.uk



The E-1 looks pretty expensive, especially in the light of that 5-megapixel CCD. What's more its lenses and accessories carry hefty price tags, too

FULL REVIEW: issue 15 Sensor 5MP 17.4mm x 13.1mm 5.5MP CCD

Lens Tested with Olympus Zuiko 14-54mm, also available body-only Focus Auto, manual Exposure modes Program AE, shutter-priority, aperture-priority, manual Metering Multi-pattern ESP, centre-weighted, spot Monitor 1.8-inch, 134,000 pixels AF compensation: +/-5EV in 0.3EV or 0.5EV steps **Flash** No Video output PAL or NTSC Movie recording No Other features Exposure and white-balance bracketing Image storage CompactFlash Batteries Lithium-ion rechargeable BLM-1 Battery life Not guoted AC adaptor Yes Weight 660g body only Dimensions 141mm(w) x 104mm(h) x 81mm(d) Transfer USB 2.0, FireWire Software Olympus Viewer 1.0 OS WinMe/2000/XP, Mac OS 9.1-9.2.2. OS X 10.1.3. 10.2

Features	97	FINAL SCORE
Images	92	00%
Build	96	XX
Value	70	<u> </u>

REVIEW FOCUS

MAKE/MODEL	£	MP	ISSUE	SCORE
CANON				
POWERSHOT A40 POWERSHOT S50	£230 £499	5	7	85% 88%
POWERSHOT G3	£700	4	5	81%
DIGITAL IXUS V2	£329	2	3	75%
CASIO				
QV-5700	£600	5	4	84%
CREATIVE	COL	0.7	_	030/-
PC CAM 300 PC CAM 750	£85 £110	0.3	2	82% 75%
UJIFILM	2.10	013	Ē	15 10
@XIA SLIMSHOT	£80	0.3	1	82%
FINEPIX A101	£140	1.3	1	84%
FINEPIX A303	£280	3.2	4	87%
FINEPIX F402 FINEPIX F401	£300 £400	2.1	5 1	85% 84%
FINEPIX F601	£490	3.1	2	90%
FINEPIX S602 PRO	£700	3.1	6	90%
FINEPIX M603	£700	3	5	78%
HP .				
PHOTOSMART 320	£150	2	2	90%
PHOTOSMART 720 PHOTOSMART 850	£300 £400	3.3	6	71% 72%
KODAK	2400	_		72 70
ASYSHARE DX4330	£300	3.1	2	63%
DX4330	£300	3.1	1	63%
KONICA				
(D-100 (D-400Z	£100 £400	1.3	1	67% 90%
CYOCERA	1400	4	'	90%
FINECAM S5	£450	5	7	82%
MINOLTA				
DIMAGE F100	£400	3.95	2	86%
DIMAGE F300	£500	5	6	87%
DIMAGE 7I DIMAGE 7HI	£799	4.95	4	89% 92%
MUSTEK	£1,000	5	4	92%
GSMART MINI2	£80	1.3	1	71%
NIKON				
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COOLPIX 4300 COOLPIX 4500	£450 £550	4	3 5	82% 91%
COOLPIX 5700	£1,000	5	3	88%
DLYMPUS				
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C-730 C-4000 ZOOM	£445 £449	3.2	4	88% 90%
C-50	£550	5	4	88%
250-50 ZOOM	£650	5	6	96%
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PANASONIC				
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SIGMA SD-9 SIPIX	£1,640	3.4	6	79%
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ONY				
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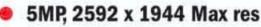
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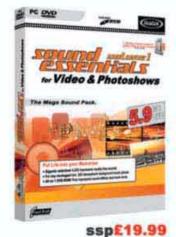
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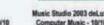


















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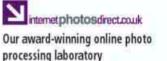
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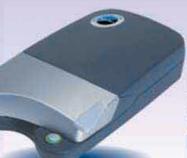


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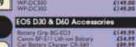
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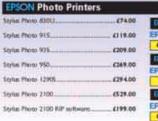






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Finepix F410 **Premier Kit** with Cradle

Finepix \$5000

UNDLE Feld (with cradle), 126mp xD and, Taji spare Balt, & Feji care #3600

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Dimage E323

BUNDED: E323. 6 4010 SD card. reader, hatheres, charges & case F226.0





OLYMPUS Camedia C-750z

- (179.99

OLYMPUS

MJU-400D

MINE: Milli-300D, 64mb sD-cael.



HICKE: Pit, 128410 Metikiny Stick, read-

INDEE: P42, Glant Memory State

SONY

DSC-P72

DSC-P53

KD-310Z



DMCRE KD-3th/Z, 64erb 5D card, reader

BUILD 2005, 64mb CF card, mader A

Optio S4 NEW



BUNDLE: 54. (24mb-50 cmf, made) A.

ERINDLE 458, Damp SD card, mader & Case (1989 etc.)

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Powershot \$50

MINIOLTA Dimage F300

Dimage Z1

Dimage A



BUNDLE: (300, 124mb SD card, reades, bethries, charger & Minotla case #4650 O

OLYMPUS Camedia: G-5060z

UNDLE C-5066Z, aCb MfL reader, 4x na bath. A cow....

DSC-P12



BEINDLE: P32, 64min Memory Stick read-

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WEIGH

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DSC-U50



BUMAE 3500, (28mb CF cant, made) &





DAM's Secure Digital (SD) card ... 356Mb Secure Digital (SD) card ...



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126/Mb av & 125B reader CF DAME & USE teacher SD SEMb ax a: USB made: CF S12/VID Ax & USB teader CT ______F129 06

4Mb SmirtMedia ...

Finepix A203

BUNDLE: Atos, comb x0 card, mader, betteres, charger & case #249.9



MINERE: April, 64mb xD conf. readert.

Finepix \$304





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2100 + 64MB CARD + GASE NIKON COOLPIX 3100 3100 + 64MB CARD + GASE NIKON COOLPIX SO SO + 64MB CARD + CASE	\$159.99 \$159.99 \$159.99 \$179.90 \$239.99 \$259.39 \$799.99 \$310.90	SONY CYBERSHOT OSC PT2 + EXTHA SONY CYBERSHOT OSC PT2 + EXTHA SONY CYBERSHOT DSC PR + EXTHA
MINOLTA DIMAGE AT AT DIE, EKTRA 64MB CARD, & CASE MINOLTA SCANDUAR, 3 HIKON COOLPY 2149 2189 + 64MB CARD + GASE NIKON COOLPY 3149 3190 + 64MB CARD + GASE NIKON COOLPY 3190 32 + 64MB CARD + CASE NIKON COOLPY 3190 (32) + 64MB CARD + CASE NIKON COOLPY 3190 (33) + 64MB CARD + CASE NIKON COOLPY 3190 (33) + 64MB CARD + CASE		SONY CYBERSHOT OSC PT2 + EXTHA SONY CYBERSHOT OSC PT2 + EXTHA SONY CYBERSHOT DSC PR + EXTHA
4300 + 64MD CARD & CASE	2310.00	SONY CYBERSHOT DSC PTZ + EXTHA SONY CYBERSHOT DSC PTZ + EXTHA SONY CYBERSHOT DSC PTB + EXTHA SONY CYBERSHOT DSC PTB + EXTRA SONY CYBERSHOT DSC PTB + EXTRA SONY CYBERSHOT
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4300 + 64MB CABD & CASE NIKON COOLPO: \$400 \$400 + 5400 + 6400 \$700 + 128MB CARD & CASE NIKON COOLPO: \$700 \$700 + 128MB CARD & CASE OLYMPUS CTS ZOOM C150 NC. CASE 37MB CARD, & CHARGER KIT OLYMPUS C220 \$700 + 6400 CASE 04MB CARD, & CHARGER KIT	\$310,00 \$524,99 \$544,90 \$779,00 \$810,00 \$119,90 \$140,00 \$144,99 \$179,90	SONY CYBERSHOT OSC PTZ + EXTRA SONY CYBERSHOT OSC FTZ + EXTRA BAME SONY CYBERSHOT OT CYBERSHOT CYBERSHOT OT CYBERSHOT CYBERSHOT OT CYBERSHOT OT CYBERSHOT OT CYBERSHOT CYBERSHOT OT CYBERSHOT OT CYBERSHOT OT CYBERSHOT OT CYBERSHOT CYBERSHOT OT CYBE
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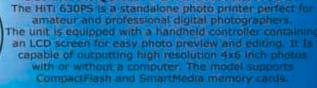
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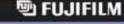
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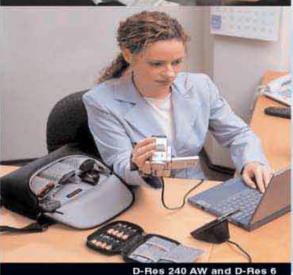
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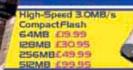
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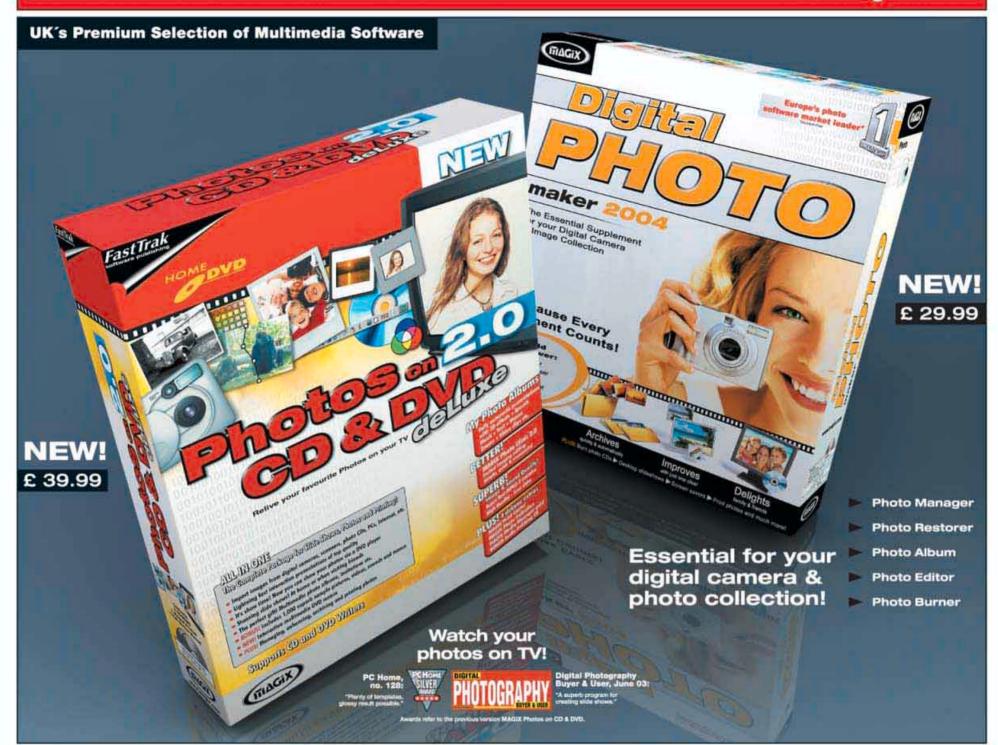
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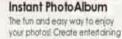


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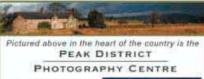
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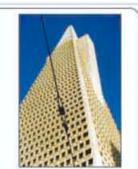
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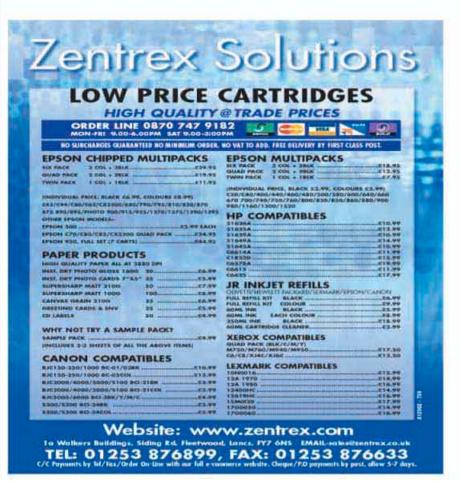


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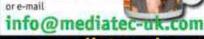
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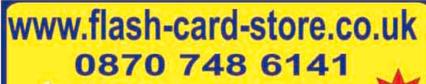




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